

I would like to comment that I do not wish that this plutonium dump site be at Hanford, Washington. I don't think that they have proved that they can clean up the mess that they already have out there. Let's do that first and then project to the future. But right now I do not think Hanford is ready is ready for this.

1

PD010

#### PD010-1

#### Alternatives

DOE acknowledges the commentor's opposition to siting the proposed surplus plutonium disposition facilities at Hanford. DOE believes that Hanford's efforts should remain focused on its current high-priority cleanup mission. The importance of cleanup at Hanford was taken into consideration in identifying preferred sites for surplus plutonium disposition activities. However, no decision has been made, and DOE will continue to consider Hanford for surplus plutonium disposition or other programs that are compatible with the Hanford mission.

**ANONYMOUS  
PAGE 1 OF 1**

Thank you for the opportunity to comment on the Storage and Disposition of Fissile Material. I would like to go on record stating that action should be conducted at Hanford utilizing the FMEF, Feed Material Examination Facility. I think that any other place in the United States would be a total disregard of the capabilities of the Hanford Site and would result in excessive of costs to do the project. Also all the hype about Hanford is exactly that, it is hype relative to what the anti-nuclear activist are saying. There is no shred of proof in anything that they are saying. And I think that it is incumbent upon the Department of Energy to take a strong stance and to tell them where they can put their opinions. It is about time the Department of Energy stands up, does the right thing rather than the politically correct easy way out. Thank you for your time and again FMEF is the name of the game.

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PD009

**PD009-1****Alternatives**

DOE acknowledges the commentor's support for siting the proposed surplus plutonium disposition facilities using FMEF at Hanford. DOE believes that Hanford's efforts should remain focused on its current high-priority cleanup mission. The importance of cleanup at Hanford was taken into consideration in identifying preferred sites for surplus plutonium disposition activities. However, no decision has been made, and DOE will continue to consider Hanford for surplus plutonium disposition or other programs that are compatible with the Hanford mission, especially in regard to the use of existing facilities.

Although cost will be a factor in the decisionmaking process, this SPD EIS contains environmental impact data and does not address the costs associated with the various alternatives. A separate report, *Cost Analysis in Support of Site Selection for Surplus Weapons-Usable Plutonium Disposition* (DOE/MD-0009, July 1998), which analyzes the site-specific cost and schedule estimates for each alternative, was made available around the same time as the SPD Draft EIS. This report and the *Plutonium Disposition Life-Cycle Costs and Cost-Related Comment Resolution Document* (DOE/MD-0013, November 1999), which covers recent life-cycle cost analyses associated with the preferred alternative, are available on the MD Web site at <http://www.doe-md.com> and in the public reading rooms at the following locations: Hanford, INEEL, Pantex, SRS, and Washington, D.C.

I believe you should select the Hanford Site as the place to bring the stuff. We have had it out here for years. We know how to handle it. We've never had an accident involving a fatality out here in regards to nuclear radiation or any of the material involved. I believe with an existing structure to house the stuff and handle it you will save yourselves a lot of money. Thank you.

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PD007

#### PD007-1

#### Alternatives

DOE acknowledges the commentor's support for siting the proposed surplus plutonium disposition facilities at Hanford. DOE believes that Hanford's efforts should remain focused on its current high-priority cleanup mission. The importance of cleanup at Hanford was taken into consideration in identifying preferred sites for surplus plutonium disposition activities. However, no decision has been made, and DOE will continue to consider Hanford for surplus plutonium disposition or other programs that are compatible with the Hanford mission, especially in regard to the use of existing facilities.

Although cost will be a factor in the decisionmaking process, this SPD EIS contains environmental impact data and does not address the costs associated with the various alternatives. A separate report, *Cost Analysis in Support of Site Selection for Surplus Weapons-Usable Plutonium Disposition* (DOE/MD-0009, July 1998), which analyzes the site-specific cost and schedule estimates for each alternative, was made available around the same time as the SPD Draft EIS. This report and the *Plutonium Disposition Life-Cycle Costs and Cost-Related Comment Resolution Document* (DOE/MD-0013, November 1999), which covers recent life-cycle cost analyses associated with the preferred alternative, are available on the MD Web site at <http://www.doe-md.com> and in the public reading rooms at the following locations: Hanford, INEEL, Pantex, SRS, and Washington, D.C.

**BENTON COUNTY**  
**PAGE 1 OF 2**

**BENTON COUNTY STATEMENT**  
**U.S. Department of Energy Draft EIS for Plutonium Disposition**

We appreciate the opportunity to present the Benton County position on plutonium disposition.

Let me say at the outset that Benton County supports plans to vitrify and dispose of scrap plutonium in a national repository and to dispose of excess plutonium in a commercial reactor using mixed oxide (MOX) fuel.

We do however, have serious concerns with the decision-making process and the logic used to arrive at the preferred alternatives outlined in the draft EIS.

**1<sup>st</sup> Point**

The decision-making process up to this point has not adequately addressed cost. Using the Fuels and Materials Examination Facility (FMEF) for MOX fuel manufacturing provides substantial savings to the American taxpayer and to the DOE cleanup budget over construction of a new MOX manufacturing facility at Savannah River. Cost savings become even more attractive (over \$500 million) when you consider co-locating both fuel fabrication and pit disassembly and conversion. To not fully consider these cost savings and share this information with the public is incompetent at best and intentionally misleading at worst.

**2<sup>nd</sup> Point**

The notion that the cleanup program at Hanford can't be completed effectively while supporting a fuel fabrication and pit disassembly/conversion is ridiculous! Both the environmental cleanup and plutonium disposition missions close the loop on the Cold War. When viewed from this perspective they are extremely compatible and both missions have local and state support. Washington State Governor Gary Locke has stated in a letter sent earlier this year to Secretary Pena that he would accept a MOX program at Hanford on the condition DOE TPA cleanup commitments are met. We support that position.

WAD07

**WAD07-1**

**Alternatives**

DOE acknowledges the commentor's support for the hybrid approach.

**WAD07-2**

**Cost**

Because cost issues are beyond the scope of this SPD EIS, this comment has been forwarded to the cost analysis team for consideration. The *Cost Analysis in Support of Site Selection for Surplus Weapons-Usable Plutonium Disposition* (DOE/MD-0009, July 1998) report and the *Plutonium Disposition Life-Cycle Costs and Cost-Related Comment Resolution Document* (DOE/MD-0013, November 1999), which covers recent life-cycle cost analyses associated with the preferred alternative, are available on the MD Web site at <http://www.doe-md.com> and in the public reading rooms at the following locations: Hanford, INEEL, Pantex, SRS, and Washington, D.C. Decisions on the surplus plutonium disposition program at Hanford will be based on environmental analyses, technical and cost reports, national policy and nonproliferation considerations, and public input.

**WAD07-3**

**Alternatives**

DOE acknowledges the commentor's support for siting the pit conversion and MOX facilities at Hanford. DOE believes that Hanford's efforts should remain focused on its current high-priority cleanup mission. The importance of cleanup at Hanford was taken into consideration in identifying preferred sites for surplus plutonium disposition activities. However, no decision has been made, and DOE will continue to consider Hanford for surplus plutonium disposition or other programs that are compatible with the Hanford mission.

**Conclusion**

My comments are short today. Please see the previous meeting record for our detailed comments. What you are hearing today, and what you heard at the last meeting on this subject, is not new. What is baffling is your dogged determination to ignore the facts and proceed on a pre-determined course. This is not responsible governance. It cheats the American taxpayers and it further damages the credibility of the federal government, and the Department of Energy.

The EIS should be withdrawn, revised and a new draft issued that gives balanced consideration to all pertinent issues. And in the future, please don't come here and take our comments if you aren't willing to listen to what we have to say. It is a waste of time for all involved parties.

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WAD07

**WAD07-4**

**General SPD EIS and NEPA Process**

No decisions on the siting of the proposed surplus plutonium disposition facilities have been made. DOE analyzed each environmental resource area in a consistent manner across all the alternatives to allow for a fair comparison among the alternatives and among the candidate sites for surplus plutonium disposition facilities. All comments, regardless of how or from whom received, were given equal consideration and responded to. Decisions on the surplus plutonium disposition program will be based on public input, environmental analyses, technical and cost reports, and national policy and nonproliferation considerations.

BRIEHL, SUSAN  
PAGE 1 OF 1

Susan Briehl  
Haden Village  
11000 Steeple  
Chelan, WA 98814

Secretary of Energy  
U.S. Department of Energy  
1000 Independence Ave. SW  
Washington, D.C. 20585

Dear Sir,

I am truly concerned about the plans to create mixed-oxide fuel to burn in commercial nuclear reactors, especially in the Pacific Northwest. This is dangerous, unwise, and only proliferates nuclear waste. We need to clean up Hanford and protect the Columbia River.

More importantly, my Christian faith calls me to lend and help heal the creation of God. Please, let's work together to eliminate all nuclear proliferation.

Sincerely,  
Susan Briehl  
Susan Briehl

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FD338

#### FD338-1

#### MOX Approach

DOE acknowledges the commentor's opposition to the MOX approach. DOE believes that Hanford's efforts should remain focused on its current high-priority cleanup mission. The importance of cleanup at Hanford was taken into consideration in identifying preferred sites for surplus plutonium disposition activities. However, no decision has been made, and DOE will continue to consider Hanford for surplus plutonium disposition or other programs that are compatible with the Hanford mission.

The goal of the surplus plutonium disposition program is to reduce the threat of nuclear weapons proliferation worldwide by conducting disposition of surplus plutonium in the United States in an environmentally safe and timely manner. Converting the surplus plutonium into MOX fuel and using it in domestic, commercial reactors is an effective way to accomplish this. To this end, surplus plutonium would be subject to stringent control, and the MOX facility would be built and operated subject to the following strict conditions: construction would take place at a secure DOE site, it would be owned by the U.S. Government, operations would be limited exclusively to the disposition of surplus plutonium, and the MOX facility would be shut down at the completion of the surplus plutonium disposition program. For reactor irradiation, the NRC license would authorize only the participating reactors to use MOX fuel fabricated from surplus plutonium, and the irradiation would be a once-through cycle with no reprocessing. After irradiation, the MOX fuel would be removed from the reactor and managed with the rest of the spent fuel from the reactor, eventually being disposed of at a potential geologic repository built in accordance with the NWPA.

US DOE needs to hear your voice NOW!

1. Should Clean Up be the sole mission at Hanford?  
Yes ☒ No ☐ 1
2. Should the United States Government maintain its longstanding policy against the use of weapons Plutonium to fuel civilian nuclear reactors?  
Yes ☒ No ☐ 2
3. Which alternative would you prefer to see the US Department of Energy pursue:  
Immobilization (encasement of plutonium in glass-like tombs) Or ☒  
The MOX plan (burning plutonium to fabricate fuel for use in a civilian nuclear reactor)? 3
4. Should Plutonium, to be used for processing and fabrication of MOX fuel, be imported to the Hanford site along the Columbia River?  
Yes ☐ No ☒ 4
5. How concerned are you about the transportation of Plutonium through the Northwest?  
Not concerned slightly concerned very concerned completely opposed ☒  
B. How concerned are you about the transport through the Northwest of fuel containing weapons Plutonium?  
Not concerned Slightly concerned Very concerned completely opposed ☒ 4
6. Should commercial nuclear power plants be allowed to run on MOX fuel containing weapons Plutonium?  
Yes ☒ No ☐ 5  
B. Should they be subsidized with tax dollars to do so?  
Yes ☐ No ☒ 5
7. Should MOX fuel containing weapons Plutonium be used to restart the FFTF reactor at Hanford to produce Tritium for nuclear bombs?  
Yes ☐ No ☒ 6

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Portland, OR 97214  
(503) 235-2531

MD289

MD289-1

DOE Policy

DOE believes that Hanford's efforts should remain focused on its current high-priority cleanup mission. The importance of cleanup at Hanford was taken into consideration in identifying preferred sites for surplus plutonium disposition activities. However, no decision has been made, and DOE will continue to consider Hanford for surplus plutonium disposition or other programs that are compatible with the Hanford mission.

MD289-2

Nonproliferation

U.S. policy dating back to the Ford Administration has prohibited the commercial, chemical reprocessing and separation of plutonium from spent nuclear fuel. The use of U.S. surplus plutonium in existing domestic, commercial reactors does not involve reprocessing (reprocessing is a chemical separation of uranium, transuranic elements [including plutonium], and fission products from spent reactor fuel and the reuse of the plutonium and uranium to produce new fresh fuel). The proposed use of MOX fuel is consistent with the U.S. nonproliferation policy and would ensure that plutonium which was produced for nuclear weapons and subsequently declared excess to national security needs is never again used for nuclear weapons. Consistent with the U.S. policy of discouraging the civilian use of plutonium, a MOX facility would be built and operated subject to the following strict conditions: construction would take place at a secure DOE site, it would be owned by the U.S. Government, operations would be limited exclusively to the disposition of surplus plutonium, and the MOX facility would be shut down at the completion of the surplus plutonium disposition program.

MD289-3

Alternatives

DOE has identified as its preferred alternative the hybrid approach. Pursuing both immobilization and MOX fuel fabrication provides the United States important insurance against potential disadvantages of implementing either approach by itself. The hybrid approach also provides the best opportunity for U.S. leadership in working with Russia to implement similar options for reducing Russia's excess plutonium in parallel. Further, it sends the strongest possible signal to the world of U.S. determination to reduce stockpiles of surplus plutonium as quickly as possible and in a manner that would make it technically difficult to use the plutonium in nuclear weapons again.

Under the hybrid approach, approximately 33 t (36 tons) of clean plutonium metal and oxides would be used to fabricate MOX fuel, which would be irradiated in domestic, commercial reactors. DOE has determined that 17 t (19 tons) of the surplus plutonium would be immobilized due to the complexity, timing, and cost that would be involved in purifying those plutonium materials to make them suitable for use in MOX fuel. Therefore, fabricating all 50 t (55 tons) of surplus plutonium into MOX fuel is not considered a reasonable alternative at this time and is not analyzed; however, immobilizing all of the surplus plutonium is analyzed. Given the variability in purity of the surplus plutonium to be dispositioned, some of the plutonium currently considered for MOX fuel fabrication may also need to be immobilized. The incremental impacts that would be associated with a small shift in materials throughput are discussed in Section 4.30.

**MD289-4****Transportation**

The shipment of nuclear material (e.g., depleted uranium) using commercial carriers would be the subject of detailed transportation plans in which routes and specific processing locations would be discussed. These plans are coordinated with State, tribal, and local officials. The shipment of waste would be in accordance with the decisions reached on the *Final Waste Management Programmatic Environmental Impact Statement for Managing Treatment, Storage, and Disposal of Radioactive and Hazardous Waste* (DOE/EIS-0200-F, May 1997) and the *WIPP Disposal Phase Final Supplemental EIS* (DOE/EIS-0026-S-2, September 1997). The transportation of special nuclear materials is the subject of detailed planning with DOE's Transportation Safeguards Division. The dates and times that specific transportation routes would be used for special nuclear materials are classified information; however, the number of shipments that would be required, by location, has been included in this SPD EIS. Additional details are provided in *Fissile Materials Disposition Program SST/SGT Transportation Estimation* (SAND98-8244, June 1998), which is available on the MD Web site at <http://www.doe-md.com>.

**MD289-5****MOX Approach**

Use of MOX fuel in domestic, commercial reactors is not proposed in order to subsidize the commercial nuclear power industry. Rather, the purpose of this proposed action is to safely and securely disposition surplus plutonium by



meeting the Spent Fuel Standard. The Spent Fuel Standard, as identified by NAS and modified by DOE, is to make the surplus weapons-usable plutonium as inaccessible and unattractive for weapons use as the much larger and growing quantity of plutonium that exists in spent nuclear fuel from commercial power reactors. The MOX facility would produce nuclear fuel that would displace LEU fuel that utilities would have otherwise purchased. If the effective value of the MOX fuel exceeds the cost of the LEU fuel that it displaced, then the contract provides that money would be paid back to the U.S. Government by DCS based on a formula included in the DCS contract. The commercial reactors selected for the MOX approach include only those reactors whose operational life is expected to last beyond the life of the surplus plutonium disposition program.

**MD289-6**

**DOE Policy**

As discussed in Section 1.7.4, Appendix D was deleted because none of the proposals to restart FFTF currently consider the use of surplus plutonium as a fuel source. In December 1998, the Secretary of Energy decided that FFTF would not play a role in producing tritium.

Additional Comments:

Recreation, including windsurfing,  
is becoming our primary economy  
A "Nuclear" wind day is desirable  
a nuclear river is not.  
Please exercise care with  
our river.

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MD289

**MD289-7****Water Resources**

As described in Section 4.26.1.2, surface water would not be used in construction and operation of the proposed surplus plutonium disposition facilities at Hanford. Due to the dilution capability of the Columbia River, as well as FMEF's location relative to the Columbia River, there would be no discernible contamination of aquatic biota (fish) or drinking water resulting from the proposed facilities at Hanford, either from minute quantities of air deposition into the river or from any other potential wastewater releases. Therefore, no discernible impacts on the Columbia River would be expected.

Hi, my name is M. B. Condon. I'm leaving a comment for the Surplus Plutonium Draft EIS. This comment is for myself and for Tim Young. Our address is 380 Ilsa Way, Goldendale, Washington, 98620. Our phone number is (509) 773-6991. And I'm going to read a statement we prepared. We tried to fax it into this number according to your message but were not able to get through and we are aware that the deadline is today, September 16. So I'm going to read a long statement in and we're also going to mail it, but I want this included in the public record. We want the following questions, concerns, and assumptions addressed in the Surplus Plutonium Draft EIS.

What classified toxic elements are contained in nuclear warhead pits and how much toxic pollution is going to be created by the separation of those elements from plutonium? Where are the toxic waste products going to be stored and how are they going to be handled?

Which specific reactors in the United States are going to be licensed to burn plutonium? How are reactors that were never designed for this fuel going to be tested and certified before allowing plutonium radiation to be generated by them? How are the safety records of commercial reactor operators going to be factored into the decisions to allow them to use plutonium as a reactor fuel? Why should reactors that are scheduled for decommissioning be allowed to continue operating beyond their scheduled life span and then be allowed to utilize a fuel they were never designed to burn?

PD062

#### PD062-1

#### Pit Disassembly and Conversion

A pit is made of plutonium, which consists mainly of the isotope plutonium 239. Pit plutonium can contain trace amounts of a variety of hazardous impurities such as beryllium and lead. These contaminants are expected to remain entrained in the plutonium dioxide material. The very low levels of contaminants do not adversely affect the MOX and immobilization approaches, and inclusion of the polishing step in the MOX facility would remove a good deal of the contaminants. Some pits may also be contaminated with tritium, a radioisotope of hydrogen, which can be removed by heating the pit material in a vacuum furnace to drive off the tritium gas. Another element, which may be present in pit plutonium at low levels, but above trace amounts, is gallium, which is added as an alloying agent. Because high levels of gallium may adversely affect MOX fuel performance, it would be removed during the plutonium polishing process, as discussed in Section 2.4.3.2. The pit conversion process would generate some LLW and TRU waste and a very small amount of mixed LLW and hazardous waste. These wastes include spent filters, used containers and equipment, paper and cloth wipes, protective clothing, shielding, solvents, and cleaning solutions. In general, these wastes contribute to less than 4 percent of the existing wastes at all the candidate sites and would be handled as part of the site waste management practice. A description of waste generation and management is provided in Appendix H.

#### PD062-2

#### MOX Approach

Although no U.S. commercial reactors are licensed to use plutonium-based fuel, several are designed to use MOX fuel, and others can easily accommodate a partial MOX core. Therefore, DOE conducted a procurement process to acquire MOX fuel fabrication and irradiation services. As a result of this procurement, DOE identified Catawba, McGuire, and North Anna as the reactors proposed to irradiate MOX fuel as part of the proposed action in this SPD EIS. In accordance with a stipulation of its *RFP for MOX Fuel Fabrication and Reactor Irradiation Services*, these are new reactors, that is, reactors whose operational life is expected to last beyond the life of the surplus plutonium disposition program. The selected team, DCS, would have to apply for a reactor operating license amendment for each individual

reactor before it can use MOX fuel. For this amendment, the licensee would have to demonstrate that all safety, testing, and environmental impacts have been addressed as well as complete the public hearing process. In addition, NRC would evaluate license applications and monitor the operations of both the MOX facility and the commercial reactors selected to use MOX fuel to ensure adequate margins of safety. Section 4.28 was revised to provide reactor-specific analyses and discuss the potential environmental impacts of using a partial MOX core during routine operations and reactor accidents.

Specifically, how much radioactive waste will be created by each step of plutonium reprocessing from the removal of plutonium oxide from bomb cores, the creation of MOX fuels, the transportation of all radioactive materials, including the waste products to the generation of electricity and possibly the production of tritium? How much more radioactive waste will be generated by each reactor that will be allowed to operate beyond its decommissioning date compared to amount of radioactive waste created if the reactor were retired on schedule?

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How are DOE and the commercial reactor operators going to protect the public and the environment from the radioactive hazards posed by the generation of more nuclear waste from the burning of MOX fuels, when both the DOE and commercial operators have no idea of how to protect the public and the environment from the radiation hazards presently posed by the burning of uranium in reactors?

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What specific transportation means and routes will be used to transport the weapons grade plutonium, MOX fuels, and the resulting nuclear and toxic waste? How will the public be notified so their elected officials can participate in the creation of disaster plans in the case of a mishap? What specific plans are in place for nuclear mishaps along the transportation routes and are they adequate to protect the public, crops, livestock, and the environment from exposure in the case of an accident or intentional destructive act?

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PD062

### PD062-3

### Waste Management

DOE acknowledges the commentor's concerns regarding waste generation and management. Waste streams that would be generated by the pit conversion, immobilization, and MOX facilities are detailed in the Waste Management sections in Chapter 4 of Volume I and Appendix H. As described in Sections 2.18.3 and 4.28.2.8, additional spent fuel would be produced by using MOX fuel instead of LEU fuel in domestic, commercial reactors. Spent fuel management at the proposed reactor sites is not expected to change dramatically due to the substitution of MOX assemblies for some of the LEU assemblies. Likewise, the additional spent fuel would be a very small fraction of the total that would be managed at the potential geologic repository.

The transportation requirements for the surplus plutonium disposition program are also evaluated in this SPD EIS. The shipment of waste will be done in accordance with the decisions reached on the *Final Waste Management Programmatic Environmental Impact Statement for Managing Treatment, Storage, and Disposal of Radioactive and Hazardous Waste* (DOE/EIS-0200-F, May 1997) and the *WIPP Disposal Phase Final Supplemental EIS* (DOE/EIS-0026-S-2, September 1997).

The production of tritium in a commercial light water reactor is being evaluated in a separate DOE EIS, *Final EIS for the Production of Tritium in a Commercial Light Water Reactor* (DOE/EIS-0288, March 1999).

In choosing reactors to use the MOX fuel fabricated under the surplus plutonium disposition program, DOE looked at the criteria of reactor age. DOE chose only reactors whose planned operating life extended through the full life cycle of the surplus plutonium disposition program.

### PD062-4

### Human Health Risk

DOE and NRC are committed to protecting the health and safety of the public. This includes designing, constructing, and operating DOE- and NRC-regulated facilities (e.g., domestic, commercial reactors) in such a way as to continually provide a level of safety and reliability that meets or exceeds established standards. DOE and commercial reactors also have plans and

programs for the safe management and ultimate disposal of their nuclear waste. Section 4.28 addresses the issue of waste generation by those domestic, commercial reactors designated to irradiate MOX fuel.

The remainder of this comment is addressed in response PD062-3.

**PD062-5****Transportation**

DOE anticipates that transportation of plutonium pits, nonpit plutonium, MOX fuel, and HEU (i.e., special nuclear materials) required to disposition surplus plutonium would be done through the DOE Transportation Safeguards Division using SST/SGTs as described in Appendix L.3.2. The shipment of nuclear material (e.g., depleted uranium) using commercial carriers would be the subject of detailed transportation plans in which routes and specific processing locations would be discussed. These plans are coordinated with State, tribal, and local officials. For emergency response planning, all shipments are coordinated with appropriate law enforcement and public safety agencies. If requested, DOE will assist these officials with response plans, and, if necessary, with resources in accordance with DOE Order 5530.3, *Radiological Assistance Program*. DOE has developed and implemented a Radiological Assistance Program to provide assistance in all types of radiological accidents. Through this coordination and liaison program, DOE offers in-depth briefing at the State level.

The transportation of depleted uranium oxide and waste (i.e., non-special nuclear materials) would be done using commercial carriers. Nuclear material shipments must comply with both NRC and DOT regulatory requirements. Appendix L.3.3 provides details on the transportation of this type of materials and the transportation route selection process. DOT routing regulations require that shipments of radioactive material be transported over a preferred highway network including interstate highways, with preference toward bypasses around cities, and State-designated preferred routes.

The dates and times that specific transportation routes would be used for special nuclear materials are classified information; however, the number of shipments that will be required, by location, has been included in this SPD EIS. Additional details are provided in *Fissile Materials Disposition Program SST/SGT Transportation Estimation* (SAND98-8244, June 1998), which is available on the MD Web site at <http://www.doe-md.com>.

We, M.B. Condon and Tim Young, are totally opposed to the reprocessing of weapons-grade plutonium into MOX fuel to be burned in commercial nuclear reactors. Furthermore, we believe there should be no taxpayer subsidies to commercial operators to allow them to use MOX fuels in reactors that were never designed to do so and to allow the life of reactors to be extended beyond their scheduled decommissioning date. The DOE and the commercial nuclear industries should not be allowed to initiate any programs that will create more radioactive and toxic wastes when the technology doesn't exist to deactivate and neutralize the waste created over the last 50 years by industry and the Government. We support the isolation and vitrification of weapons-grade plutonium. Although this is an inadequate solution to the radioactive waste problem, it at least offers some assurance that these materials won't find their way into nuclear weapons in the future.

Finally, we have no confidence in the DOE's ability to safely and securely transport weapons-grade plutonium and MOX fuel to reactor sites. The public and their elected representatives are totally uninformed and unprepared for any nuclear mishaps that could result. And we don't think that the DOE or the nuclear industry has the will or the resources to adequately prepare the public for the possible dangers that these materials represent to their communities. We are also unwilling to give up any of our rights so that these materials can be moved "securely" through our communities. Thank you and we will be sending our comments through the mail. We would like to be submitted in the public record as we have recorded them on this message of September 16, 1998. Thank you.

PD062

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#### PD062-6

#### Alternatives

DOE acknowledges the commentor's opposition to the MOX approach and support for the immobilization approach to surplus plutonium disposition.

U.S. policy dating back to the Ford Administration has prohibited the commercial, chemical reprocessing and separation of plutonium from spent nuclear fuel. The use of U.S. surplus plutonium in existing domestic, commercial reactors does not involve reprocessing (reprocessing is a chemical separation of uranium, transuranic elements [including plutonium], and fission products from spent reactor fuel and the reuse of the plutonium and uranium to produce new fresh fuel). The proposed use of MOX fuel is consistent with the U.S. nonproliferation policy and would ensure that plutonium which was produced for nuclear weapons and subsequently declared excess to national security needs is never again used for nuclear weapons.

Use of MOX fuel in domestic, commercial reactors is not proposed in order to subsidize the commercial nuclear power industry. Rather, the purpose of this proposed action is to safely and securely disposition surplus plutonium by meeting the Spent Fuel Standard. The Spent Fuel Standard, as identified by NAS and modified by DOE, is to make the surplus weapons-usable plutonium as inaccessible and unattractive for weapons use as the much larger and growing quantity of plutonium that exists in spent nuclear fuel from commercial power reactors. The MOX facility would produce nuclear fuel that would displace LEU fuel that utilities would have otherwise purchased. If the effective value of the MOX fuel exceeds the cost of the LEU fuel that it displaced, then the contract provides that money would be paid back to the U.S. Government by DCS based on a formula included in the DCS contract. The commercial reactors selected for the MOX approach include only those reactors whose operational life is expected to last beyond the life of the surplus plutonium disposition program.

Although cost will be a factor in the decisionmaking process, this SPD EIS contains environmental impact data and does not address the costs associated with the various alternatives. A separate cost report, *Cost Analysis in Support of Site Selection for Surplus Weapons-Usable Plutonium Disposition* (DOE/MD-0009, July 1998), which analyzes the site-specific cost

estimates for each alternative, was made available around the same time as the SPD Draft EIS. This report and the *Plutonium Disposition Life-Cycle Costs and Cost-Related Comment Resolution Document* (DOE/MD-0013, November 1999), which covers recent life-cycle cost analyses associated with the preferred alternative, are available on the MD Web site at <http://www.doe-md.com> and in the public reading rooms at the following locations: Hanford, INEEL, Pantex, SRS, and Washington, D.C.

DOE has identified as its preferred alternative the hybrid approach. Pursuing both immobilization and MOX fuel fabrication provides the United States important insurance against potential disadvantages of implementing either approach by itself. The hybrid approach also provides the best opportunity for U.S. leadership in working with Russia to implement similar options for reducing Russia's excess plutonium in parallel. Further, it sends the strongest possible signal to the world of U.S. determination to reduce stockpiles of surplus plutonium as quickly as possible and in a manner that would make it technically difficult to use the plutonium in nuclear weapons again.

#### PD062-7

#### DOE Policy

It is DOE's policy that plutonium shipments must comply with applicable DOT and NRC regulatory requirements. The highway routing of nuclear material is systematically determined according to DOT regulations 49 CFR 171 through 179 and 49 CFR 397 for commercial shipments. Transportation of special nuclear materials, including fresh MOX fuel, would use DOE's SST/SGT system. Since the establishment of the DOE Transportation Safeguards Division in 1975, the SST/SGT system has transported DOE-owned cargo over more than 151 million km (94 million mi) with no accidents causing a fatality or release of radioactive material. As indicated in Section 2.18, no traffic fatalities from nonradiological accidents or LCFs from radiological exposures or vehicle emissions would be expected for any of the surplus plutonium disposition alternatives proposed at the candidate sites. A description of the transportation activities is given in Section 2.4.4. Transportation risks and steps to mitigate the risks are analyzed in Chapter 4 of Volume I and Appendix L.



DAVENPORT, LESLIE C.  
PAGE 1 OF 2

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August 20, 1998

U.S. Department of Energy  
Office of Fissile Materials Disposition  
c/o SPD EIS  
P.O. Box 23786  
Washington, D.C. 20026-3786

Gentlemen:

Please include the following in the record of public comments for the "Surplus Plutonium Disposition Environmental Impact Statement" (SPD EIS). If there are questions, please contact me at my home telephone, (509) 946-4409.

I support the **HYBRID APPROACH of ALTERNATIVE 4B** for surplus plutonium disposition. I support the use of 33 metric tons or more to make MOX fuel. I support **IMMOBILIZATION** of the completely unusable scrap and waste (in CERAMIC form) using the CAN-IN-CANISTER method. However, only the initial 8 metric tons that was declared as surplus (waste, low-purity, nonpit plutonium) not suitable for use in MOX fuel should be immobilized promptly. The remaining 9 metric tons that was later declared surplus/waste should be retained until the MOX fuel fabrication process is operating to see if some of this Pu could be used in producing MOX fuel after all.

I agree that HANFORD'S TOP PRIORITY MUST REMAIN ENVIRONMENTAL CLEANUP, but do not believe it has to be Hanford's sole mission!

Alternative 4B involves pit storage at Pantex (both continuing long term for weapons stockpile pits, and short term until surplus pits are converted). The Pit Disassembly and Conversion Facility (PD&CF) should be located at Pantex. This will provide high security for the pits at Pantex until they are reduced to an unclassified geometry, since Pantex already has most of the U.S. inventory of pits. The Fuels and Materials Examination Facility (FMEF) at Hanford should be used for MOX Fuel Fabrication Facility and possibly the Immobilization Facility. The alternative would be immobilization at the High Level Waste Vitrification Facility (HLWVF) to be constructed at Hanford. Hanford is the only DOE site with extensive experience in fabrication, irradiation, and testing of MOX fuel (e.g., MOX fuel for FFTF and other research reactors was fabricated at Hanford).

The FMEF is an existing facility that was designed for plutonium processing, is uncontaminated and hence easy to modify, is built to modern safety standards in DOE's General Design Criteria, is licensable by the NRC, and meets NQA-1 equivalent standards. DOE/MD-0005 (1996) states in part that the FMEF is the "... least cost building option... capital cost savings on the order of \$200 million... Well suited to accomplish the MOX fabrication mission." FMEF has 250,000 ft<sup>2</sup> on six levels, in which there is space for glovebox operations, hot cell operations, facility services, radiation control, and offices. FMEF offers proven operable systems with the least cost and schedule risk and is the quickest option to address the Congressional recommendation to rapidly reduce proliferation risk through pit disassembly, and MOX fuel fabrication. The National Academy of Sciences evaluated FMEF as the lowest cost, most expeditious, and leading candidate option for MOX fuel fabrication. Further, Hanford already has complete infrastructure and waste handling facilities in place, and will soon have a high-level waste vitrification facility and associated analytical laboratories.

Please reconsider the initial decision to locate both the PD&CF and Immobilization Facilities at the Savannah River Site (SRS). Please address timing considerations and lowest comparisons to bring existing or new facilities on-line and determine the most expeditious and economical way to proceed in an ACCURATE, POLITICALLY UNBIASED manner. The significant advantages of diversification and utilization of existing resources at Hanford is extremely important, and does not make the mistake of granting one site in the DOE complex all of the new missions.

Sincerely,

*Leslie C. Davenport*

Leslie C. Davenport,  
Senior Engineer, Nuclear Safety (Retired)  
Consultant, Criticality Safety

cc: Senator Slade Gorton, Congressman Doc Hastings

MD123

MD123-1

Alternatives

DOE acknowledges the commentor's support of Alternative 4B for surplus plutonium disposition. DOE has identified as its preferred alternative the hybrid approach. Pursuing both immobilization and MOX fuel fabrication provides the United States important insurance against potential disadvantages of implementing either approach by itself. The hybrid approach also provides the best opportunity for U.S. leadership in working with Russia to implement similar options for reducing Russia's excess plutonium in parallel. Further, it sends the strongest possible signal to the world of U.S. determination to reduce stockpiles of surplus plutonium as quickly as possible and in a manner that would make it technically difficult to use the plutonium in nuclear weapons again.

Approximately 33 t (36 tons) of clean plutonium metal and oxides would be used to fabricate MOX fuel, which would be irradiated in domestic, commercial reactors. In the *Storage and Disposition PEIS* ROD, DOE committed to immobilizing at least 8 t (9 tons) of surplus, low-purity, nonpit plutonium. Since the ROD was issued, however, DOE has identified that an additional 9 t (10 tons) of low-plutonium-content materials would require additional processing, and would therefore be unsuitable for MOX fuel fabrication due to the complexity, timing, and cost that would be involved in purifying those plutonium materials.

MD123-2

Alternatives

DOE believes that Hanford's efforts should remain focused on its current high-priority cleanup mission. The importance of cleanup at Hanford was taken into consideration in identifying preferred sites for surplus plutonium disposition activities. However, no decision has been made, and DOE will continue to consider Hanford for surplus plutonium disposition or other programs that are compatible with the Hanford mission, especially in regard to the use of existing facilities.

Although cost will be a factor in the decisionmaking process, this SPD EIS contains environmental impact data and does not address the costs associated with the various alternatives. A separate cost report, *Cost Analysis in Support of Site Selection for Surplus Weapons-Usable Plutonium*

*Disposition* (DOE/MD-0009, July 1998), which analyzes the site-specific cost estimates for each alternative, was made available around the same time as the SPD Draft EIS. This report and the *Plutonium Disposition Life-Cycle Costs and Cost-Related Comment Resolution Document* (DOE/MD-0013, November 1999), which covers recent life-cycle cost analyses associated with the preferred alternative, are available on the MD Web site at <http://www.doe-md.com> and in the public reading rooms at the following locations: Hanford, INEEL, Pantex, SRS, and Washington, D.C. Decisions on the surplus plutonium disposition program will be based on environmental analyses, technical and cost reports, national policy and nonproliferation considerations, and public input. DOE will announce its decisions regarding facility siting and approach to surplus plutonium disposition in the SPD EIS ROD.

*August 14, 1998*

**The U.S. Department of Energy needs to hear your voice NOW!**  
What do you think about a new era of nuclear proliferation?

Hanford Action of Oregon will forward this questionnaire to USD OE. Please circle your responses.

- Should cleanup be the sole mission at Hanford?  
*my folks takes made the stuff - now use mine and my kids take to clean up the mess.*  
Yes ☒ No ☐
- Should the United States government maintain its longstanding policy opposing the use of weapons plutonium to fuel civilian nuclear reactors?  
*What about the Salt talks? Who are we kidding?*  
Yes ☒ No ☐
- Should commercial nuclear reactors be allowed to run on MOX fuel containing weapons-grade plutonium?  
*Dumb ideas die hard - kill this idea.*  
Yes ☐ No ☒
- Should they be subsidized with tax dollars to do so?  
*Clean up*  
Yes ☐ No ☒
- Which alternative would you prefer to see the U.S. Department of Energy pursue:  
*We should stop subsidizing this insane industry.*  
immobilization (encasement of plutonium in glass logs or in canisters for entombment)  
*if we don't already do it, but we should at least try it. too hot to*  
The MOX plan (processing plutonium into fuel for use in civilian nuclear reactors).  
Yes ☐ No ☒
- How concerned are you about the transportation of plutonium *anywhere* through the Northwest to Hanford?  
Not concerned ☐ Slightly Concerned ☐ Very Concerned ☒ Completely opposed ☐
- How concerned are you about transporting plutonium MOX fuel *anywhere* through the Northwest to Hanford?  
Not concerned ☐ Slightly Concerned ☐ Very Concerned ☒ Completely opposed ☐
- Should MOX fuel be used to restart the Fast Flux Test Facility (FFTF), a risky liquid-metal reactor at Hanford, to produce tritium for nuclear bombs?  
*Never start up the FFTF again.*  
Yes ☐ No ☒

Name Rochelle Giddings  
Address 12211 C St S Tacoma WA 98444-5118  
Phone \_\_\_\_\_ e-mail \_\_\_\_\_  
*Passo High School Class of 1954 and still waiting for clean up.*  
Please return to Hanford Action of Oregon by September 10, 1998.  
**Hanford Action of Oregon**  
25-6 NW 23rd Pl. #406 tel: (503) 235-2924 fax: (503) 736-0097 e-mail: hanraie@aol.com

MD276

## MD276-1

## DOE Policy

DOE acknowledges the commentator's view on cleanup of former weapons production sites. Weapons production was necessary for national security in the past, and now cleanup is necessary to provide a better environment for future generations.

DOE believes that Hanford's efforts should remain focused on its current high-priority cleanup mission. The importance of cleanup at Hanford was taken into consideration in identifying preferred sites for surplus plutonium disposition activities. However, no decision has been made, and DOE will continue to consider Hanford for surplus plutonium disposition or other programs that are compatible with the Hanford mission.

## MD276-2

## Nonproliferation

An objective of the arms reduction is to make sure that the weapons materials declared surplus would not be used for weapons again. Converting the surplus plutonium into MOX fuel and using it in domestic, commercial reactors is an effective way to accomplish this objective. Turning surplus plutonium into highly radioactive spent fuel would make reuse of this plutonium technically difficult, time consuming, and very costly.

U.S. policy dating back to the Ford Administration has prohibited the commercial, chemical reprocessing and separation of plutonium from spent nuclear fuel. The use of U.S. surplus plutonium in existing domestic, commercial reactors does not involve reprocessing (reprocessing is a chemical separation of uranium, transuranic elements [including plutonium], and fission products from spent reactor fuel and the reuse of the plutonium and uranium to produce new fresh fuel). The proposed use of MOX fuel is consistent with the U.S. nonproliferation policy and would ensure that plutonium which was produced for nuclear weapons and subsequently declared excess to national security needs is never again used for nuclear weapons. Consistent with the U.S. policy of discouraging the civilian use of plutonium, a MOX facility would be built and operated subject to the following strict conditions: construction would take place at a secure DOE site, it would be owned by the U.S. Government, operations would be limited exclusively to the disposition of surplus plutonium, and the MOX facility would be shut down at the completion of the surplus plutonium disposition program.

**MD276-3****MOX Approach**

DOE acknowledges the commentator's opposition to the MOX approach to surplus plutonium disposition. Analyses provided in Section 2.18.3 and Chapter 4 of Volume I for the alternatives that include MOX fuel fabrication and irradiation show that potential impacts would likely be minor.

Use of MOX fuel in domestic, commercial reactors is not proposed in order to subsidize the commercial nuclear power industry. Rather, the purpose of this proposed action is to safely and securely disposition surplus plutonium by meeting the Spent Fuel Standard. The Spent Fuel Standard, as identified by NAS and modified by DOE, is to make the surplus weapons-usable plutonium as inaccessible and unattractive for weapons use as the much larger and growing quantity of plutonium that exists in spent nuclear fuel from commercial power reactors. The MOX facility would produce nuclear fuel that would displace LEU fuel that utilities would have otherwise purchased. If the effective value of the MOX fuel exceeds the cost of the LEU fuel that it displaced, then the contract provides that money would be paid back to the U.S. Government by DCS based on a formula included in the DCS contract. The commercial reactors selected for the MOX approach include only those reactors whose operational life is expected to last beyond the life of the surplus plutonium disposition program.

**MD276-4****Alternatives**

DOE has identified as its preferred alternative the hybrid approach. Pursuing both immobilization and MOX fuel fabrication provides the United States important insurance against potential disadvantages of implementing either approach by itself. The hybrid approach also provides the best opportunity for U.S. leadership in working with Russia to implement similar options for reducing Russia's excess plutonium in parallel. Further, it sends the strongest possible signal to the world of U.S. determination to reduce stockpiles of surplus plutonium as quickly as possible and in a manner that would make it technically difficult to use the plutonium in nuclear weapons again.

Under the hybrid approach, approximately 33 t (36 tons) of clean plutonium metal and oxides would be used to fabricate MOX fuel, which would be irradiated in domestic, commercial reactors. DOE has determined that 17 t (19 tons) of the surplus plutonium would be immobilized due to the complexity, timing, and cost that would be involved in purifying those plutonium materials to make them suitable for use in MOX fuel. Therefore, fabricating all 50 t (55 tons) of surplus plutonium into MOX fuel is not considered a reasonable

alternative at this time and is not analyzed; however, immobilizing all of the surplus plutonium is analyzed. Given the variability in purity of the surplus plutonium to be dispositioned, some of the plutonium currently considered for MOX fuel fabrication may also need to be immobilized. The incremental impacts that would be associated with a small shift in materials throughput are discussed in Section 4.30.

Testing is under way to confirm that the immobilized plutonium would meet the performance criteria for disposal in a potential geologic repository pursuant to the NWPA.

#### **MD276-5**

#### **Transportation**

The shipment of nuclear material (e.g., depleted uranium) using commercial carriers would be the subject of detailed transportation plans in which routes and specific processing locations would be discussed. These plans are coordinated with State, tribal, and local officials. The shipment of waste would be in accordance with the decisions reached on the *Final Waste Management Programmatic Environmental Impact Statement for Managing Treatment, Storage, and Disposal of Radioactive and Hazardous Waste* (DOE/EIS-0200-F, May 1997) and the *WIPP Disposal Phase Final Supplemental EIS* (DOE/EIS-0026-S-2, September 1997). The transportation of special nuclear materials is the subject of detailed planning with DOE's Transportation Safeguards Division. The dates and times that specific transportation routes would be used for special nuclear materials are classified information; however, the number of shipments that would be required, by location, has been included in this SPD EIS. Additional details are provided in Fissile Materials Disposition Program SST/SGT Transportation Estimation (SAND98-8244, June 1998), which is available on the MD Web site at <http://www.doe-md.com>.

#### **MD276-6**

#### **DOE Policy**

As discussed in Section 1.7.4, Appendix D was deleted because none of the proposals to restart FFTF currently consider the use of surplus plutonium as a fuel source. In December 1998, the Secretary of Energy decided that FFTF would not play a role in producing tritium.

**HANFORD ATOMIC METAL TRADES COUNCIL**  
**KEITH A. SMITH, JR.**  
**PAGE 1 OF 3**

I am concerned that the U S Department of Energy may not give cost the importance it deserves when selecting a site at which Pu pit disassembly will occur and MOX fuel fabrication takes place. The Hanford Atomic Metal Trades Council believes the FMEF at Hanford to be the best location at which to perform pit disassembly and MOX fuel fabrication and should be placed high on the options list for these operations. Siting these operations elsewhere to Hanford would materially add to the taxpayer burden by necessitating the construction of an entire new facility in which to perform the the pit disassembly and MOX fuel prouduction. Costs to upgrade Hanford facilities would cost much less. Much more less than to what the DOE now gives credence. That is due to the way the DOE estimates costs, the result of creative perspectives designed to put the best light on the preconceived notions of certain out of touch officials.

The Hanford Atomic Metal Trades Council would like to propose an independent review and some cost-benefit analyses of the different Sites which have been or are now lacking in honesty and candor.

The Hanford Atomic Metal Trades Council requests the decision for Siting the MOX fuel program and Pit disassembly operation to be reexamined and the FMEF be given full consideration for implementation in the foreseeable future. To fail that and wind up spendiing hundreds of millions of dolllars more than necessary would seem to the Council to result in more reductions in available clean up dollars and put the entire clean up program in jeopardy.

WD007

**WD007-1****Alternatives**

DOE acknowledges the commentor's support for siting the pit conversion and MOX facilities in FMEF at Hanford. DOE believes that Hanford's efforts should remain focused on its current high-priority cleanup mission. The importance of cleanup at Hanford was taken into consideration in identifying preferred sites for surplus plutonium disposition activities. However, no decision has been made, and DOE will continue to consider Hanford for surplus plutonium disposition or other programs that are compatible with the Hanford mission, especially in regard to the use of existing facilities.

Because cost issues are beyond the scope of this SPD EIS, this comment has been forwarded to the cost analysis team for consideration. The *Cost Analysis in Support of Site Selection for Surplus Weapons-Usable Plutonium Disposition* (DOE/MD-0009, July 1998) report and the *Plutonium Disposition Life-Cycle Costs and Cost-Related Comment Resolution Document* (DOE/MD-0013, November 1999), which covers recent life-cycle cost analyses associated with the preferred alternative, are available on the MD Web site at <http://www.doe-md.com> and in the public reading rooms at the following locations: Hanford, INEEL, Pantex, SRS, and Washington, D.C.

**WD007-2****General SPD EIS and NEPA Process**

DOE has analyzed each environmental resource area in a consistent manner across all the alternatives to allow for a fair comparison among the alternatives and among the candidate sites for the proposed surplus plutonium disposition facilities.

Funds for the surplus plutonium disposition program and the environmental cleanup program come from different appropriation accounts allocated by the U.S. Congress that cannot be used interchangeably. Decisions on the surplus plutonium disposition program will be based on environmental analyses, technical and cost reports, national policy and nonproliferation considerations, and public input.

In the interest of saving dollars the Council also offers the represented work force at Hanford as a source of experienced workers and those who are trained to handle fissile material for the MOX fuel and pit disassembly activity. The Council is fully prepared to engage any new employer in a cooperative spirit and to facilitate the movement of experienced and trained workers into new missions with new, private employers, even as we are doing now with Johnson Controls. British Nuclear Fuels, the Vitrification Plant contractor has already expressed and interest in forming a working relationship with the Council and that willingness has been reciprocated.

The latest edition of the Scientific American contains the report of a study which asserts that an organized work force is sixteen percent above the baseline in efficiency while a non-union work force is eleven percent below the baseline in efficiency. That should clearly place the Hanford Workforce at an advantage for cost effectiveness and thereby free up dollars for clean up.

Budget crunch at Hanford has already begun to stretch the existing work force beyond reasonable limits. It has come to the place where in some cases if two people are lost due to vacations or illness, no work can be done. We do not need further cuts and to irresponsibly site the MOX fuel production and pit disassembly somewhere beside Hanford will surely result in fewer dollars for cleanup.

1

WD007

**HANFORD ATOMIC METAL TRADES COUNCIL**  
**KEITH A. SMITH, JR.**  
**PAGE 3 OF 3**

The Hanford Atomic Metal Trades Council represents over 2,600 workers on the Site. These are the people who do the work and bear the greatest risk and responsibility on a daily basis, for working with and around nuclear materials of every type. The U S Department of Energy would not regret siting the disassembly of Pu pits and the manufacture of MOX fuel at the FMEF at Hanford.

1

WD007



HANFORD COMMUNITIES  
HONORABLE LARRY HALER  
PAGE 1 OF 4

## Hanford Communities

Richland • Kennewick • Pasco • West Richland • Benton City • Benton County

P.O. Box 190, Richland, WA 9935  
Telephone (509) 943-7148 Fax (509) 943-5609

October 17, 1997

Honorable Federico Peña  
Secretary of Energy  
U. S. Department of Energy  
1000 Independence Avenue, S.W.  
Washington, D.C. 20585

Re: Use of Hanford Facilities for Plutonium Disposition

Dear Mr. Secretary:

### BACKGROUND

We sincerely appreciated the opportunity to meet with you to discuss the Hanford Communities' concerns about environmental cleanup of the Hanford Site and the potential use of Hanford facilities for plutonium disposition. As a former Mayor, you clearly understand our concerns as elected officials, to see the Hanford cleanup proceed in the most expeditious and cost effective manner possible.

In examining the budget projections for 1998 and budget targets for 1999, even in the highest case budget scenarios, funding will fall short of covering the cleanup requirements in our Tri-Party Agreement. In 1999, in addition to environmental cleanup, the Department will also need to begin to take action to meet its responsibilities for tritium production and plutonium disposition. We anticipate that funds from existing programs will be drawn down to cover costs associated with these two new initiatives. We became aware of this situation in meetings we had with staff at the Office of Management and Budget in March. They informed us that no new money would be allocated to the Department of Energy. We believe, therefore, that it is essential for the Department to put political concerns aside and look for the lowest cost alternative, which would be to use existing Hanford facilities to accomplish these new missions.

### FAST FLUX TEST FACILITY

Hanford's Fast Flux Test Facility is the newest and most sophisticated reactor in the DOE Complex. Recently completed studies indicate that this facility merits serious consideration for the production of tritium to meet the defense needs of the United States. Its potential for producing medical isotopes is of particular importance to the advancement of medical science and the economic stability of our communities. FFTF has historically run on mixed oxide fuel and therefore should additionally be considered for the role it can play in plutonium disposition.

1

2

WAD04

### WAD04-1

### Cost

Funds are not being taken from DOE's budget for environmental cleanup in order to support surplus plutonium disposition. Funds for the surplus plutonium disposition program and the environmental cleanup program come from different appropriation accounts allocated by the U.S. Congress that cannot be used interchangeably.

DOE believes that Hanford's efforts should remain focused on its current high-priority cleanup mission. The importance of cleanup at Hanford was taken into consideration in identifying preferred sites for surplus plutonium disposition activities. However, no decision has been made, and DOE will continue to consider Hanford for surplus plutonium disposition or other programs that are compatible with the Hanford mission, especially in regard to the use of existing facilities.

Because cost issues are beyond the scope of this SPD EIS, this comment has been forwarded to the cost analysis team for consideration. The *Cost Analysis in Support of Site Selection for Surplus Weapons-Usable Plutonium Disposition* (DOE/MD-0009, July 1998) report and the *Plutonium Disposition Life-Cycle Costs and Cost-Related Comment Resolution Document* (DOE/MD-0013, November 1999), which covers recent life-cycle cost analyses associated with the preferred alternative, are available on the MD Web site at <http://www.doe-md.com> and in the public reading rooms at the following locations: Hanford, INEEL, Pantex, SRS, and Washington, D.C.

### WAD04-2

### DOE Policy

As discussed in Section 1.7.4, Appendix D was deleted because none of the proposals to restart FFTF currently consider the use of surplus plutonium as a fuel source. In December 1998, the Secretary of Energy decided that FFTF would not play a role in producing tritium.

**HANFORD COMMUNITIES  
HONORABLE LARRY HALER  
PAGE 2 OF 4**

**FUELS AND MATERIALS EXAMINATION FACILITY**

At our lunch meeting a month ago we discussed the advantages of using the Fuels and Materials Examination Facility (FMEF) located directly adjacent to FFTF for various tasks associated with plutonium disposition. This unique facility was built for the purpose of manufacturing mixed oxide (MOX) fuel for the nation's breeder reactor program. It is the only existing building in the country that can house both plutonium pit disassembly and conversion and mixed oxide fuel manufacturing in the same facility. Colocating these functions in one building will save hundreds of millions of dollars in operating and capital costs.

We also indicated to you that we, and others in the DOE Complex, believe there appears to be a strong bias on the part of DOE Headquarters' staff to locate all aspects of plutonium disposition facilities at the Savannah River Site. We have drawn this conclusion for many reasons. Last year, the Department completed a Programmatic Environmental Impact Statement (PEIS) addressing storage and disposition options for weapons useable fissile materials. The local Advisory Committee we appointed to analyze that PEIS, came to the conclusion that decision making criteria were heavily biased to achieve a Savannah River outcome. For your information, we have enclosed the critiques submitted by our communities and comments provided by DOE-Richland regarding the PEIS and the supporting technical summary documents. While extensive analysis is included in the technical documents regarding Savannah River facilities, virtually no consideration is given to facilities at Hanford. We are seeing this same bias surface in the current Environmental Impact Statement process.

**NOTICE OF INTENT**

In March, several of our local elected officials attended an Energy Communities Alliance meeting in Washington, D.C. While there, we discovered that the Department was about to issue a Notice of Intent to proceed with an Environmental Impact Statement designating Savannah River as the preferred alternative site for both plutonium immobilization and mixed oxide fuel fabrication. When we inquired why such a decision had been made prior to a full environmental impact assessment, we were given the following answers:

1. "It will be easier and cheaper to license a new building with the Nuclear Regulatory Commission as opposed to an existing facility." The NRC has not provided such advice to the Department of Energy.
2. "There will be strong opposition on the part of environmentalists in the Northwest to plutonium disposition functions occurring at Hanford." We encourage Department staff to look at a letter they received from the Military Production Network in December opposing any consideration of mixed oxide fuel for plutonium disposition anywhere in the country. Most of the organizations are located in the Eastern United States.

WAD04

**WAD04-3**

**Alternatives**

DOE acknowledges the commentor's support for collocating pit disassembly and conversion and MOX fuel fabrication in FMEF at Hanford. Although cost will be a factor in the decisionmaking process, this SPD EIS contains environmental impact data and does not address the costs associated with the various alternatives. A separate cost report, *Cost Analysis in Support of Site Selection for Surplus Weapons-Usable Plutonium Disposition* (DOE/MD-0009, July 1998), which analyzes the site-specific cost estimates for each alternative, was made available around the same time as the SPD Draft EIS. This report and the *Plutonium Disposition Life-Cycle Costs and Cost-Related Comment Resolution Document* (DOE/MD-0013, November 1999), which covers recent life-cycle cost analyses associated with the preferred alternative, are available on the MD Web site at <http://www.doe-md.com> and in the public reading rooms at the following locations: Hanford, INEEL, Pantex, SRS, and Washington, D.C.

**WAD04-4**

**General SPD EIS and NEPA Process**

For this SPD EIS, DOE carefully obtained comparable data on all of the alternatives, analyzed the data in a consistent manner using well-recognized and accepted procedures, and presented the results in a full and open manner. To properly address this comment, DOE again reviewed the subject critique together with the source material on the Hanford and SRS sites. The review indicated that all information from Hanford and SRS had been evaluated and used in a consistent, unbiased manner.

**WAD04-5**

**NRC Licensing**

DOE acknowledges the commentor's support for siting the proposed surplus plutonium disposition facilities at Hanford. An NOI statement on a preferred alternative is not a decision. The DOE statement regarding the potential difficulty of NRC licensing one of a number of facilities collocated in one building was based on DOE's understanding of NRC's regulatory requirements at the time of the Richland scoping hearing. Because a number of attendees at the Richland hearing indicated that there were precedents for NRC licensing collocated facilities, DOE met with NRC to discuss the issue, and included several alternatives (4B, 6B, and 6D) in the SPD Draft EIS that

**HANFORD COMMUNITIES**  
**HONORABLE LARRY HALER**  
**PAGE 3 OF 4**

Additionally, at the EIS Scoping Meeting held in Richland on July 1, 1997, spokesmen for two of the most vocal Hanford stakeholder environmental organizations offered testimony indicating that any plutonium disposition function at Hanford must not have a negative impact on the Hanford cleanup. They did not reject a plutonium disposition role. The combined attendance at the afternoon and evening meetings was over 150 people. The Department received overwhelming testimony in support of plutonium disposition functions being located at Hanford.

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**COST COMPARISONS**

During the summer we learned that the Department was not intending to include cost considerations in identifying plutonium disposition sites. We do not know if this decision has been reconsidered. However, the evaluation of capital costs and the operational cost savings of co-locating plutonium disposition tasks would be favorable only to Hanford. By rejecting this increasingly important criteria, advantages of using the Hanford Site are diminished if not eliminated.

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**NRC LICENSING**

At the Richland scoping meeting on July 1, 1997, the public was also informed that there would be an NRC licensing problem with co-locating plutonium pit disassembly, plutonium conversion, and MOX fuel assembly in one building. We asked who, in the Nuclear Regulatory Commission, had provided such advice to the Department of Energy and received no response. Our own conversations with NRC indicate that not only has such a decision not been made, but that specific discussions had not begun at that time.

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**SIZE OF FMEF - CO-LOCATION COST ADVANTAGES**

We were advised at the scoping meeting that FMEF is not large enough to accommodate these various functions based on an analysis that was done by the National Laboratories. We indicated that nuclear fuel manufacturers, firms who have actually made mixed oxide fuel, have carefully analyzed the layout of the facility and have drawn the conclusion that there is adequate space to accommodate the various functions. This was affirmed as recently as August 1997 when a study team sent by DOE Headquarters visited the facility. A letter submitted by Siemens Power Corporation in July also affirming that the facility has adequate space is enclosed for your information. We are enclosing other documentation about the capabilities of the facility. This material has previously been provided to the Materials Disposition (MD) Office in DOE Headquarters. We keep providing documentation and MD staff keep coming up with new and creative reasons not to accept it. Frankly, this has become extremely frustrating.

8

We recognize that the seniority and political clout of the members of Congress from the State of Washington is not equal to that of members of Congress from the vicinity of the Savannah River Site. However, Congress and the Administration appear fully committed to balancing the budget in the next several years. Based on our conversations with staff at the

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WAD04

collocate the MOX facility with one of the other proposed facilities in FMEF at Hanford. The decision that all three facilities would not be collocated in FMEF was made not because of potential NRC licensing issues, but rather because there is not enough space in FMEF to accommodate all three facilities. While no specific issues were identified for FMEF, NRC indicated that overall regulation of a collocated facility may be complicated and burdensome, depending on the degree of integration of the MOX facility and other nuclear facilities that would not be regulated by NRC.

**WAD04-6**

**Cost**

This comment is addressed in response WAD04-3.

**WAD04-7**

**NRC Licensing**

This comment is addressed in response WAD04-5.

**WAD04-8**

**NRC Licensing**

Collocation alternatives continue to be considered that involve the use of FMEF at Hanford. Alternatives 2 and 11A include collocating the immobilization and pit conversion facilities; Alternative 4B, the immobilization and MOX facilities; and Alternative 6B, the MOX and pit conversion facilities. The only alternative eliminated for consideration in this SPD EIS was collocating all three proposed surplus plutonium disposition facilities in FMEF based on space requirements. The most current data available shows the size required for each of the three proposed facilities preclude the use of FMEF.

**WAD04-9**

**Cost**

This comment is addressed in response WAD04-3.

**HANFORD COMMUNITIES**  
**HONORABLE LARRY HALER**  
**PAGE 4 OF 4**

Office of Management and Budget, we don't anticipate that any new money will be provided to the Department for plutonium disposition or tritium production. Therefore, the merits of using existing facilities that will save the Department hundreds of millions of dollars in capital and operating costs should not be ignored.

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**LACK OF LOBBYING EFFORTS**

Most recently we have been informed that we will not be chosen for a plutonium disposition role at Hanford because we have not been lobbying the Department of Energy as aggressively as Savannah River. I do not believe that conclusions should be drawn in an Environmental Impact Statement based on political clout or lobbying efforts in Washington D.C.

10

**CONCLUSION**

We are simply asking for a fair, balanced evaluation of plutonium disposition alternatives using relevant criteria. Based on what has happened in the last year and our current observations, this is not happening. We believe that a document is being constructed to justify a previously drawn conclusion. If this is the case, it opens the Record of Decision up to legal challenges and accompanying programmatic delays. We stand ready to appeal if it becomes necessary, but hope that such a legal challenge is not required.

11

We have been informed that last December you indicated to your future staff that you were not happy about the lack of consideration that was given to the role FTF can play in plutonium disposition and that you would require full, fair evaluation of alternatives in the future. We believe that your personal involvement will be required to be sure that this EIS process involves a full and complete analysis of options. Many studies and reports have been written about the capabilities of FMEF. Jim Mecca and his staff from the Richland Operations Office can easily answer any questions you may have about the facility.

We appreciate your attention to this issue and the opportunity to provide information directly to you about the advantages of using Hanford facilities for plutonium disposition.

Sincerely,



Larry Haler  
 Mayor

Enclosures

WAD04

**WAD04-10**

**General SPD EIS and NEPA Process**

As discussed in response WAD04-1, DOE believes that Hanford's efforts should remain focused on its current high-priority cleanup mission. Decisions on the surplus plutonium disposition program will be based on environmental analyses, technical and cost reports, national policy and nonproliferation considerations, and public input.

**WAD04-11**

**General SPD EIS and NEPA Process**

Close coordination with the Richland Operations Office was maintained during the preparation of this SPD EIS to ensure that the best possible information was used. Furthermore, personnel from that office participated in detailed reviews and revision of the EIS prior to its approval and release. Liaison with the Richland Operations Office on the disposition of surplus plutonium would continue until such time as all of the surplus plutonium at Hanford had been dispositioned.

## HANFORD COMMUNITIES GOVERNING BOARD

HONORABLE LARRY HALER

PAGE 1 OF 4

### TESTIMONY OF LARRY HALER, CHAIRMAN, HANFORD COMMUNITIES GOVERNING BOARD

Regarding the Surplus Plutonium Disposition  
Draft Environmental Impact statement

I am Richland Mayor Larry Haler, speaking on behalf of the Hanford Communities regarding the draft surplus Plutonium Disposition Environmental Impact Statement.

The "Hanford Communities" is an intergovernmental organization formed by the cities of Richland, Kennewick, Pasco, West Richland, Benton City and Benton County to deal with Hanford related issues that affect our community.

Before I begin, please allow me to express our appreciation to the Department of Energy for holding a Public Hearing in our community. However, I must say that we were very disappointed that the new Director of the Office of Material Disposition did not choose to attend this hearing and hear the views of the people who live in this region.

1

#### Hanford Communities Position

The five cities and county that comprise the Hanford Communities have done a careful evaluation of the possibility of Hanford playing a role in the disposition of this nation's excess plutonium. We formed an advisory group over two years ago, comprised of 30 people with diverse backgrounds and interests, to study this issue. They divided up into subcommittees to carefully study such topics as transportation, health & safety, MOX fuel & plutonium conversion, reactor burn options, vitrification, socioeconomic issues and national security issues. As a result of their efforts and recommendations, the Hanford Communities collectively and through the unanimous votes of the five city councils and the Benton County Board of Commissioners, have taken the following positions:

2

\* We strongly support the reactor burn option as the preferred plutonium disposition alternative.

WAD02

### WAD02-1

### General SPD EIS and NEPA Process

Because of scheduling conflicts, it was not possible for the Director to attend all public hearings. Please be assured, however, that MD will review and consider all public comments made on the SPD Draft EIS regardless of how they were submitted: public hearings, mail, a toll-free telephone or fax line, or the MD Web site.

### WAD02-2

### Alternatives

DOE acknowledges the commentator's support for the surplus plutonium disposition program at Hanford. DOE believes that Hanford's efforts should remain focused on its current high-priority cleanup mission. The importance of cleanup at Hanford was taken into consideration in identifying preferred sites for surplus plutonium disposition activities. However, no decision has been made, and DOE will continue to consider Hanford for surplus plutonium disposition or other programs that are compatible with the Hanford mission.

**HANFORD COMMUNITIES GOVERNING BOARD**  
**HONORABLE LARRY HALER**  
**PAGE 2 OF 4**

\* We believe Hanford offers the best and most compelling cost and schedule advantage with the least environmental, health and safety and proliferation risks for plutonium processing and mixed oxide fuel assembly.

2

\* Not only can mixed oxide fuel be manufactured here at Hanford, it can also be used in our Fast Flux Test Facility and in the reactor owned by the Washington Public Power Supply System.

3

**EIS Process**

A year ago at the scoping meeting that you held in our city, we asked you to conduct a fair analysis of the facts to determine the best location for plutonium disposition facilities.

We were aware that the Department had a strong bias to locate all of these functions at Savannah River.

We presented strong testimony supported by factual information pointing out the significant cost savings of using the only facility in the country designed and built to manufacture mixed oxide fuel.

4

We pointed out the cost savings of locating two or three Pu disposition functions in one facility. We discussed the fact that MOX fuel has been produced here before and that our workforce has the skills and experience to produce fuel again.

We defined for you the schedule savings of using an existing facility verses designing, permitting and building a new greenfield facility.

**Our arguments fell on deaf ears.**

The arguments you used to discredit Hanford evolved as they were proven wrong. First you said the Nuclear Regulatory Commission would never license more than one function in one facility. They disagreed.

5

Then you interpreted a letter from our Governor stressing his concern about progress on the Hanford cleanup to say that he would not accept new

6

WAD02

**WAD02-3**

**MOX RFP**

DOE acknowledges the commentor's support for using MOX fuel in FFTF at Hanford and in the Washington Public Power Supply System reactor. As discussed in Section 1.7.4, Appendix D was deleted because none of the proposals to restart FFTF currently consider the use of surplus plutonium as a fuel source. DOE conducted a procurement process to acquire MOX fuel fabrication and irradiation services. As a result of this procurement process, DOE identified Catawba, McGuire, and North Anna as the reactors proposed to irradiate MOX fuel as part of the proposed action in this SPD EIS. Section 4.28 was revised to provide reactor-specific analyses and discuss the potential environmental impacts of using a partial MOX core during routine operations and reactor accidents.

**WAD02-4**

**General SPD EIS and NEPA Process**

The purpose of this SPD EIS is to evaluate the environmental impacts of siting and operating the proposed surplus plutonium disposition facilities at the candidate sites. Although cost will be a factor in the decisionmaking process, this EIS contains environmental impact data and does not address the costs associated with the various alternatives. Because cost issues are beyond the scope of this EIS, this comment has been forwarded to the cost analysis team for consideration. The *Cost Analysis in Support of Site Selection for Surplus Weapons-Usable Plutonium Disposition* (DOE/MD-0009, July 1998) report and the *Plutonium Disposition Life-Cycle Costs and Cost-Related Comment Resolution Document* (DOE/MD-0013, November 1999), which covers recent life-cycle cost analyses associated with the preferred alternative, are available on the MD Web site at <http://www.doe-md.com> and in the public reading rooms at the following locations: Hanford, INEEL, Pantex, SRS, and Washington, D.C.

**WAD02-5**

**NRC Licensing**

This DOE statement regarding the potential difficulty of NRC licensing facilities collocated in one building was based on DOE's understanding of NRC's regulatory requirements at the time of the Richland scoping hearing. Because a number of attendees at the Richland hearing indicated that there were precedents for NRC licensing collocated facilities, DOE met with NRC to

discuss the issue. As a result, DOE included several alternatives (4B, 6B, and 6D) in the SPD Draft EIS that collocated the MOX facility with one of the other proposed surplus plutonium disposition facilities in FMEF at Hanford. The decision that all three facilities would not be collocated in FMEF was made not because of potential NRC licensing issues, but rather because there is not enough space in FMEF to accommodate all three facilities. While no specific issues were identified for FMEF, NRC indicated that overall regulation of a collocated facility may be complicated and burdensome, depending on the degree of integration of the MOX facility and other nuclear facilities that would not be regulated by NRC.

**WAD02-6**

**Alternatives**

This comment is addressed in response WAD02-2.

**HANFORD COMMUNITIES GOVERNING BOARD**  
**HONORABLE LARRY HALER**  
**PAGE 4 OF 4**

missions. This spring he wrote a new letter to the Secretary of Energy to clarify what was clearly his intent in the first letter.

6

You said FMEF was not large enough to accommodate multiple functions. Documents prepared by nuclear fuel manufacturers disagreed.

7

While **understating** Hanford's capabilities and refusing to acknowledge documentation paid for by your own Department, some believe that you have clearly **overstated** capabilities of other sites.

8

**Meeting with Secretary Pena**

Last September our community officials met with Secretary Pena to discuss several issues of concern to us. At that time we notified him that he could anticipate that this draft EIS would fail to acknowledge the cost and schedule savings that Hanford offers. We told him that there was a clear bias towards Savannah River that could be identified in the technical documents supporting this EIS process. He asked us to document these concerns and provide the information directly to him. We did.

9

We provided him with a notebook of information. Much of the material we cited was prepared by the Department of Energy. We never received the courtesy of a response. I am now submitting this information for the record and I want a response.

**Conclusion**

The preferred alternatives you have identified will cost U.S. taxpayers hundreds of millions of dollars more than the Hanford alternative. Where do you plan to get this money? Do you plan to take these dollars out of the funds required for environmental cleanup? We are already anticipating a significant shortfall in funding needed in FY 2000 to meet compliance agreements around the country.

10

11

We will take our arguments to the new Secretary of Energy and the new Director of the Office of Fissile Materials Disposition. Perhaps they will bring reason and common sense to this process.

WAD02

**WAD02-7**

**Alternatives**

Based on all available data, DOE determined that the proposed surplus plutonium disposition facilities can not be located in FMEF because there is not enough space, even if common support functions were shared. See Sections 2.4.1.1, 2.4.2.1, and 2.4.3.1 for design layouts and the amount of space required for each facility is discussed in Section 2.6. Because of space limitations, two facilities would be located in FMEF—in the case of Alternative 2, pit conversion and immobilization. The MOX facility would be located in a new building.

**WAD02-8**

**Alternatives**

DOE acknowledges the commentor's concern regarding DOE's assessment of Hanford's capabilities relative to the other candidate sites.

**WAD02-9**

**General SPD EIS and NEPA Process**

For this SPD EIS, DOE carefully obtained comparable data on all of the alternatives, analyzed the data in a consistent manner using well-recognized and accepted procedures, and presented the results in a full and open manner. To properly address this comment, DOE again reviewed the subject notebook together with the source materials provided by the Richland Operations Office. The review indicated that all information from Hanford and SRS had been evaluated and used in a consistent, unbiased manner.

**WAD02-10**

**Cost**

This comment is addressed in response WAD02-4.

**WAD02-11**

**DOE Policy**

Funds for the surplus plutonium disposition program and the environmental cleanup program come from different appropriation accounts allocated by the U.S. Congress that cannot be used interchangeably.



My name is Barry Haus. I am a resident of Richland, WA. I am calling and commenting on your plans for processing spent fuel, specifically the plutonium and processing it into commercial fuel. My comment is that Hanford, the Hanford Site would be more suited for one of the missions which should be, although it is probably not currently planned to reprocess the N Reactor fuel. As I understand, it is probably 1600 tons of spent fuel in the K Reactor basins that needs to be processed, at least handled. I believe if you check into it you will find that approximately 2% of the weight of the fuel is fissile material which would just as well be used for commercial spent fuel, excuse me, new spent, new commercial fuel elements. Anyway you might factor in your thinking that particular problem the 1600 tons of N Reactor fuel that has to be dealt with somehow. Thank you very much.

1

PD011

**PD011-1**

**DOE Policy**

DOE acknowledges the commentor's support of reprocessing N Reactor spent fuel. However, the U.S. policy dating back to the Ford Administration has prohibited the commercial, chemical reprocessing and separation of plutonium from spent nuclear fuel. Therefore, reprocessing would not be an option for disposing of the N Reactor spent fuel.

Hello. My name is Ted Holtz and I live along the Columbia River. I built a house there and I would like to express my concerns about (being) directly affected by Hanford not being cleaned up. Express my concerns about how the issue seems to be confounded by corporate interests in creating this MOX uranium or MOX fuel. I think the focus should be on clean up and just cleanup, and proper storage and disposal of the waste and not trying to make a corporate kind of welfare system that will support the failing nuclear industry by creating a sort of taxed corporate welfare system for that industry. So I just want to express that and a household of five and everybody in my household agrees with this statement. Thank you very much. My phone number is (360) 837-3022 if there is any response or questions directed towards me. Thank you very much. Bye.

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PD035

**PD035-1****Alternatives**

DOE acknowledges the commentor's opposition to the MOX approach and to siting the MOX facility at Hanford. Use of MOX fuel in domestic, commercial reactors is not proposed in order to subsidize the commercial nuclear power industry. Rather, the purpose of this proposed action is to safely and securely disposition surplus plutonium by meeting the Spent Fuel Standard. The Spent Fuel Standard, as identified by NAS and modified by DOE, is to make the surplus weapons-usable plutonium as inaccessible and unattractive for weapons use as the much larger and growing quantity of plutonium that exists in spent nuclear fuel from commercial power reactors.

DOE believes that Hanford's efforts should remain focused on its current high-priority cleanup mission. The importance of cleanup at Hanford was taken into consideration in identifying preferred sites for surplus plutonium disposition activities. However, no decision has been made, and DOE will continue to consider Hanford for surplus plutonium disposition or other programs that are compatible with the Hanford mission.



United States  
Department  
of Energy

*Comment Form*

NAME: (Optional) Leslie Johnson  
ADDRESS: 43604 E Shannon Lane  
TELEPHONE: (509) 967-3258  
E-MAIL: b2egbyte@aol.com

1 Over the years we have spent trillions of taxpayer  
dollars on making Plutonium. Now is the time for  
our country to reclaim some of those taxpayer dollars  
by conversion of surplus Plutonium into MOX.  
MOX fuel should be burned in commercial  
reactors so the citizens of this country can receive  
cheap electricity. After all it is their money.

2 The DOE should avail itself to the use of existing  
facilities to process excess Plutonium. New facilities are  
not required.

3 DOE has demonstrated a continual pattern to make  
decisions based on politics. I implore the DOE to make  
decisions based on economics and common sense.  
PLEASE ACT RESPONSIBLY FOR A CHANGE

WAD01

**WAD01-1**

**MOX Approach**

DOE acknowledges the commentor's support for the MOX approach. The use of MOX fuel in domestic, commercial reactors is not proposed in order to produce electricity. Rather, the purpose of this proposed action is to safely and securely disposition surplus plutonium by meeting the Spent Fuel Standard. The Spent Fuel Standard, as identified by NAS and modified by DOE, is to make the surplus weapons-usable plutonium as inaccessible and unattractive for weapons use as the much larger and growing quantity of plutonium that exists in spent nuclear fuel from commercial power reactors.

**WAD01-2**

**Alternatives**

DOE evaluated the use of existing facilities and identified potential facilities at Hanford (FMEF) and INEEL. Of the alternatives considered, only Hanford had existing facilities suitable for MOX fuel fabrication. After further evaluation of space requirements, DOE concluded that there is not enough space in FMEF to accommodate all three of the proposed surplus plutonium disposition facilities. Therefore, the alternatives include siting one or two of the three proposed facilities in existing facilities at Hanford, and the pit conversion facility in an existing facility at INEEL.

**WAD01-3**

**General SPD EIS and NEPA Process**

Siting of the proposed surplus plutonium disposition facilities is not a political decision. Decisions on the surplus plutonium disposition program will be based on technical and cost reports, environmental analyses, national policy and nonproliferation considerations, and public input.

**KILBURY, CHARLES D.**  
**PAGE 1 OF 1**

Good afternoon, ladies and gentlemen:

I am Charles D. Kilbury, mayor of the city of Pasco, but I am speaking for myself only:

It is hard to justify action taken in the Draft Plutonium Disposition Environmental Impact statement. The Record of Decision for the storage and disposition of Weapons - Usable Fissile Materials Programmatic EIS included the Hanford Project for both plutonium disposition options. And certainly the Fuels and Materials Examination Facility is the best and most efficient production of the "burn" as mixed oxide fuel, and the presence of considerable Plutonium on the Hanford Project makes it much more expedient than transporting in all directions over the far reaches of the United States.

The FMEF is an existing, unused facility that has been evaluated for performing a combination of the disposition activities.

- . The FMEF is operationally complete with 120,000 square feet of process space.
- . Designed and constructed to NRC reactor standards and is deemed capable of NRC licensing.
- . Hazardous or radioactive materials have never been used in the FMEF making it easy to install a plutonium disposition mission.
- . An FFTF MOX fuel fabrication line was installed, but has never been used.

The evaluation by the Office of Fissile Materials Disposition indicates that FMEF has sufficient space within the existing structure to perform both of the disposition functions (e.g., pit disassembly and MOX Fuel fabrication).

All this can be done cheaper than anywhere else; there is a supply of surplus Plutonium on the Hanford Project, and even reactors to accomplish the burn. It will certainly be difficult to justify not using this magnificent facility built just for this purpose.

WAD05

**WAD05-1**

**Alternatives**

DOE acknowledges the commentor's support for siting the proposed surplus plutonium disposition facilities at Hanford. DOE believes that Hanford's efforts should remain focused on its current high-priority cleanup mission. The importance of cleanup at Hanford was taken into consideration in identifying preferred sites for surplus plutonium disposition activities. However, no decision has been made, and DOE will continue to consider Hanford for surplus plutonium disposition or other programs that are compatible with the Hanford mission, especially in regard to the use of existing facilities.

Although cost will be a factor in the decisionmaking process, this SPD EIS contains environmental impact data and does not address the costs associated with the various alternatives. A separate cost report, *Cost Analysis in Support of Site Selection for Surplus Weapons-Usable Plutonium Disposition* (DOE/MD-0009, July 1998), which analyzes the site-specific cost estimates for each alternative, was made available around the same time as the SPD Draft EIS. This report and the *Plutonium Disposition Life-Cycle Costs and Cost-Related Comment Resolution Document* (DOE/MD-0013, November 1999), which covers recent life-cycle cost analyses associated with the preferred alternative, are available on the MD Web site at <http://www.doe-md.com> and in the public reading rooms at the following locations: Hanford, INEEL, Pantex, SRS, and Washington, D.C.

US DOE needs to hear your voice NOW!

1. Should Clean Up be the sole mission at Hanford?  
Yes ☒ No ☐ 1
2. Should the United States Government maintain its longstanding policy against the use of weapons Plutonium to fuel civilian nuclear reactors?  
Yes ☒ No ☐ 2
3. Which alternative would you prefer to see the US Department of Energy pursue:  
Immobilization (encasement of plutonium in glass-like tombs) ☒  
Or  
The MOX plan (burning plutonium to fabricate fuel for use in a civilian nuclear reactor)? ☐ 3
4. Should Plutonium, to be used for processing and fabrication of MOX fuel, be imported to the Hanford site along the Columbia River?  
Yes ☐ No ☒ 4
5. How concerned are you about the transportation of Plutonium through the Northwest?  
Not concerned slightly concerned very concerned completely opposed ☒  
B. How concerned are you about the transport through the Northwest of fuel containing weapons Plutonium?  
Not concerned Slightly concerned Very concerned Completely opposed ☒ 5
6. Should commercial nuclear power plants be allowed to run on MOX fuel containing weapons Plutonium?  
Yes ☐ No ☒  
B. Should they be subsidized with tax dollars to do so?  
Yes ☐ No ☒ 6
7. Should MOX fuel containing weapons Plutonium be used to restart the FFTF reactor at Hanford to produce Tritium for nuclear bombs?  
Yes ☐ No ☒ 7

Name IAN & AIKO LOW  
Address PO BOX 651  
Phone STEVENSON, WA 98648  
USA

Please return this to:  
Hanford Action  
25-6 NW 23<sup>rd</sup> Place #406  
Portland, OR 97214  
(503) 235-2531

*Let's not make anymore mistakes. Lets clean-up Hanford now with out fail!  
O. & low & family  
we live and recreate in and along the Columbia*

MD288

MD288-1

DOE Policy

DOE believes that Hanford's efforts should remain focused on its current high-priority cleanup mission. The importance of cleanup at Hanford was taken into consideration in identifying preferred sites for surplus plutonium disposition activities. However, no decision has been made, and DOE will continue to consider Hanford for surplus plutonium disposition or other programs that are compatible with the Hanford mission.

MD288-2

Nonproliferation

U.S. policy dating back to the Ford Administration has prohibited the commercial, chemical reprocessing and separation of plutonium from spent nuclear fuel. The use of U.S. surplus plutonium in existing domestic, commercial reactors does not involve reprocessing (reprocessing is a chemical separation of uranium, transuranic elements [including plutonium], and fission products from spent reactor fuel and the reuse of the plutonium and uranium to produce new fresh fuel). The proposed use of MOX fuel is consistent with the U.S. nonproliferation policy and would ensure that plutonium which was produced for nuclear weapons and subsequently declared excess to national security needs is never again used for nuclear weapons. Consistent with the U.S. policy of discouraging the civilian use of plutonium, a MOX facility would be built and operated subject to the following strict conditions: construction would take place at a secure DOE site, it would be owned by the U.S. Government, operations would be limited exclusively to the disposition of surplus plutonium, and the MOX facility would be shut down at the completion of the surplus plutonium disposition program.

MD288-3

Alternatives

DOE has identified as its preferred alternative the hybrid approach. Pursuing both immobilization and MOX fuel fabrication provides the United States important insurance against potential disadvantages of implementing either approach by itself. The hybrid approach also provides the best opportunity for U.S. leadership in working with Russia to implement similar options for reducing Russia's excess plutonium in parallel. Further, it sends the strongest

possible signal to the world of U.S. determination to reduce stockpiles of surplus plutonium as quickly as possible and in a manner that would make it technically difficult to use the plutonium in nuclear weapons again.

Under the hybrid approach, approximately 33 t (36 tons) of clean plutonium metal and oxides would be used to fabricate MOX fuel, which would be irradiated in domestic, commercial reactors. DOE has determined that 17 t (19 tons) of the surplus plutonium would be immobilized due to the complexity, timing, and cost that would be involved in purifying those plutonium materials to make them suitable for use in MOX fuel. Therefore, fabricating all 50 t (55 tons) of surplus plutonium into MOX fuel is not considered a reasonable alternative at this time and is not analyzed; however, immobilizing all of the surplus plutonium is analyzed. Given the variability in purity of the surplus plutonium to be dispositioned, some of the plutonium currently considered for MOX fuel fabrication may also need to be immobilized. The incremental impacts that would be associated with a small shift in materials throughput are discussed in Section 4.30.

#### MD288-4

#### Transportation

The shipment of nuclear material (e.g., depleted uranium) using commercial carriers would be the subject of detailed transportation plans in which routes and specific processing locations would be discussed. These plans are coordinated with State, tribal, and local officials. The shipment of waste would be in accordance with the decisions reached on the *Final Waste Management Programmatic Environmental Impact Statement for Managing Treatment, Storage, and Disposal of Radioactive and Hazardous Waste* (DOE/EIS-0200-F, May 1997) and the *WIPP Disposal Phase Final Supplemental EIS* (DOE/EIS-0026-S-2, September 1997). The transportation of special nuclear materials is the subject of detailed planning with DOE's Transportation Safeguards Division. The dates and times that specific transportation routes would be used for special nuclear materials are classified information; however, the number of shipments that would be required, by location, has been included in this SPD EIS. Additional details are provided in *Fissile Materials Disposition Program SST/SGT Transportation Estimation* (SAND98-8244, June 1998), which is available on the MD Web site at <http://www.doe-md.com>.

**MD288-5**

**MOX Approach**

Use of MOX fuel in domestic, commercial reactors is not proposed in order to subsidize the commercial nuclear power industry. Rather, the purpose of this proposed action is to safely and securely disposition surplus plutonium by meeting the Spent Fuel Standard. The Spent Fuel Standard, as identified by NAS and modified by DOE, is to make the surplus weapons-usable plutonium as inaccessible and unattractive for weapons use as the much larger and growing quantity of plutonium that exists in spent nuclear fuel from commercial power reactors. The MOX facility would produce nuclear fuel that would displace LEU fuel that utilities would have otherwise purchased. If the effective value of the MOX fuel exceeds the cost of the LEU fuel that it displaced, then the contract provides that money would be paid back to the U.S. Government by DCS based on a formula included in the DCS contract. The commercial reactors selected for the MOX approach include only those reactors whose operational life is expected to last beyond the life of the surplus plutonium disposition program.

**MD288-6**

**DOE Policy**

As discussed in Section 1.7.4, Appendix D was deleted because none of the proposals to restart FFTF currently consider the use of surplus plutonium as a fuel source. In December 1998, the Secretary of Energy decided that FFTF would not play a role in producing tritium.

**MD288-7**

**DOE Policy**

As described in Section 4.26.1.2, surface water would not be used in construction and operation of proposed surplus plutonium disposition facilities at Hanford. Due to the dilution capability of the Columbia River, as well as FMEF's location relative to the Columbia River, there would be no discernible contamination of aquatic biota (fish) or drinking water resulting from the proposed facilities at Hanford, either from minute quantities of air deposition into the river or from any other potential wastewater releases. Therefore, no discernible impacts on the Columbia River would be expected.

The remainder of this comment is addressed in response MD288-1.

RESPONCE TO

# SPD EIS

BY

CHARLES L. LUMPKIN

Charles L. Lumpkin  
603 N. 48th Ave.

FD114



LUMPKIN, CHARLES L.  
PAGE 2 OF 2

Yakima, wa 98908  
Ph.(509)965-8707

August 18,1998

To Whom it may concern;

After reviewing the S.P.D. E.I.S. It is my belief that the decisions to not name Hanford as the primary site for either or both the sites for the MOX Fuels and Immobilization is based solely on POLITICS! It is my opinion that the politicians and D.O.E. department heads that reside in Washington D.C., have once again failed to recognize the true assets of the Hanford Works Area, these being the people and the contributions that they have made to our country over the last fifty years! It is my contention that the bureaucrats in D.C. are afraid to take on the State of Washington, And the Washington Department of Ecology. Since the Honorable Henry M. Jackson passed away, thier have been no new projects at the Hanford Works area related to defense, and all the environmental projects have been delayed or referred to other D.O.E. sites, this political environment has allowed numerous technically advanced projects and facilities to decay to their ruin, F.F.T.F. and F.M.E.F. etc..

To the mater at hand, since F.F.T.F., F.M.E.F. and an already existing D&D work force are already in existence and the vitrification plant slated to be built and on line by the year 2003, I cant understand economically why the Hanford Works wouldn't be the preferred choice site for the MOX Fuels and Immobilization projects. It amazes me that across the river in Oregon a project is on going that poses more danger to the environment and health of people, ( Umatilla Army Depot Incinerator Project) than the Hanford works projects now poses, or any future projects will pose!

I would like to point out that since 1987, the Hanford works Project has changed its mission from a Department of Defense complex to an Environmental clean-up project, this I believe makes us the leaders in environmental issues and Hanford has a better working knowledge and understanding about environmental issues, I believe that we meet or exceed the other sites in the topics analyzed criteria for the SPD EIS (S.5) pg.S-21 of the summary and should be reconsidered for these projects.

Thank you

Charles L. Lumpkin

1

FD114

## FD114-1

## Alternatives

DOE acknowledges the commentor's support for siting the proposed surplus plutonium disposition facilities at Hanford. DOE believes that Hanford's efforts should remain focused on its current high-priority cleanup mission. The importance of cleanup at Hanford was taken into consideration in identifying preferred sites for surplus plutonium disposition activities. However, no decision has been made, and DOE will continue to consider Hanford for surplus plutonium disposition or other programs that are compatible with the Hanford mission, especially in regard to the use of existing facilities.

Hello, this is Jim Madison from West Pasco. Of course, I grew up as a kid in Richland and stuff like that and spent most of my life there. I personally see no problem with bringing the material back here to dispose of it or whatever. I don't see any problems with transportation and stuff like this, that some of the worry warts are really concerned about because after all the majority of that material originated here. The biggest majority of it got shipped out OK to wherever it went. And I would assume it could be shipped back here the same way with the same care and accident free manner. So I know that some of the hand wringers are going to be all fluttered and everything else, but I hope you really don't pay too much attention to them because most of them really don't know anything about anything anyway except they do make noises on the media. But practically speaking, its the only place to take it. And you will be foolish to take it somewhere else and then have to stockpile it somewhere and build, reduplicate the money for building a building like in the 400 Area that is equipped to do that plus the lead time to wait for the building to be designed and built. So that would push any disposal process several years down the road. And that I think is probably not the best process, not the best procedure either. So all in all, the only thing that makes any sense is to use what you got where it is, which is here. Thank you.

1

PD008

**PD008-1****Alternatives**

DOE acknowledges the commentor's support for siting the proposed surplus plutonium disposition facilities at Hanford. DOE believes that Hanford's efforts should remain focused on its current high-priority cleanup mission. The importance of cleanup at Hanford was taken into consideration in identifying preferred sites for surplus plutonium disposition activities. However, no decision has been made, and DOE will continue to consider Hanford for surplus plutonium disposition or other programs that are compatible with the Hanford mission, especially in regard to the use of existing facilities.

Although cost will be a factor in the decisionmaking process, this SPD EIS contains environmental impact data and does not address the costs associated with the various alternatives. A separate cost report, *Cost Analysis in Support of Site Selection for Surplus Weapons-Usable Plutonium Disposition* (DOE/MD-0009, July 1998), which analyzes the site-specific cost estimates for each alternative, was made available around the same time as the SPD Draft EIS. This report and the *Plutonium Disposition Life-Cycle Costs and Cost-Related Comment Resolution Document* (DOE/MD-0013, November 1999), which covers recent life-cycle cost analyses associated with the preferred alternative, are available on the MD Web site at <http://www.doe-md.com> and in the public reading rooms at the following locations: Hanford, INEEL, Pantex, SRS, and Washington, D.C.

I believe that it would be a travesty to bury this very valuable fuel source. DOE would spend billions to prepare it for storage when it could be processed into fuel for commercial nuclear reactors, benefiting all Americans. Various MOX projects are ready to go and should be used to turn weapons materials into electricity. In concept, this is no different than the demobilization of ships, tanks, and planes into commercial materials after WW2.

1

WD004

#### **WD004-1**

#### **MOX Approach**

DOE acknowledges the commentor's support of the MOX approach. The use of MOX fuel in domestic, commercial reactors is not proposed in order to produce electricity. Rather, the purpose of this proposed action is to safely and securely disposition surplus plutonium by meeting the Spent Fuel Standard. The Spent Fuel Standard, as identified by NAS and modified by DOE, is to make the surplus weapons-usable plutonium as inaccessible and unattractive for weapons use as the much larger and growing quantity of plutonium that exists in spent nuclear fuel from commercial power reactors.

Pursuing both immobilization and MOX fuel fabrication provides the United States important insurance against potential disadvantages of implementing either approach by itself. The hybrid approach also provides the best opportunity for U.S. leadership in working with Russia to implement similar options for reducing Russia's excess plutonium in parallel. Further, it sends the strongest possible signal to the world of U.S. determination to reduce stockpiles of surplus plutonium as quickly as possible and in a manner that would make it technically difficult to use the plutonium in nuclear weapons again. Decisions on the surplus plutonium disposition program will be based on environmental analyses, technical and cost reports, national policy and nonproliferation considerations, and public input.

**MERRILL, DAVID M.**  
**PAGE 1 OF 1**

David M. Merrill  
 513 Wagon Court  
 Richland, WA 99352  
 phone: 509 375-8408  
 E-mail: david\_merrill@nfuel.com  
 4 August 1998

Dear Sirs

I feel the Plutonium Mixed Oxide Fuel fabrication facility should be located on or near the Hanford site, for the following reasons.

First as a chemist and member of the American Chemical Society I am familiar with the talent and skills of many of my colleges who live in this area. Many of these chemists have had experience working with plutonium, and know the safety and handling procedures for both the chemical hazards and criticality safety issues.

Please consider the talent base from which to draw employees when considering where to locate the MOX facility.

Second as Co-president of the "Citizens Advisory Committee to the Richland School Board" I am familiar with the educational concerns and desires of many of the Richland parents. I have worked with parent volunteers to assure our children are given a good education. In this association I have noticed that many of the parents are very interested in providing their children with mathematical, engineering and scientific skills. We would like to see challenging jobs provided for them here. I see the MOX facility as an opportunity for our children to work in an industry we believe in.

Please consider the education base of the future employees when considering where to locate the MOX facility.

Third as a quality control chemist I know how important a dry climate is when working with various hygroscopic materials. I realize all facilities handling plutonium use extensive air conditioning systems, but a dry climate provides a much better starting point for facilities which require large amounts of conditioned air. It makes physical sense to locate the MOX facility in this dry climate area where power is inexpensive. As an Example the Siemens Power Corporation - Nuclear Division facility requires over \$1,000,000/year in electricity to operate. A similar MOX facility here would require close to that same amount, but in the south where electricity is more expensive and air conditioning more severe I would guess you are looking at more than 3 times the cost in electricity.

Please consider these types of technical and cost details as you review the location for a new MOX facility.

Sincerely

*David M. Merrill*  
 David M. Merrill

WAD22

**WAD22-1**

**Alternatives**

DOE acknowledges the commentor's support for siting the MOX facility at Hanford. DOE believes that Hanford's efforts should remain focused on its current high-priority cleanup mission. The importance of cleanup at Hanford was taken into consideration in identifying preferred sites for surplus plutonium disposition activities. However, no decision has been made, and DOE will continue to consider Hanford for surplus plutonium disposition or other programs that are compatible with the Hanford mission.

Although the education base of the community is not a factor in facility siting selection, site workforce expertise and the existence of complementary activities and missions are considered. Decisions on the surplus plutonium disposition program at Hanford will be based on environmental analyses, technical and cost reports, national policy and nonproliferation considerations, and public input.

**WAD22-2**

**Cost**

Power requirements at each of the candidate sites were taken into consideration, and it was determined that the sites under consideration had sufficient available capacity to cover the needs of the proposed MOX facility.

Because cost issues are beyond the scope of this SPD EIS, this comment has been forwarded to the cost analysis team for consideration. The *Cost Analysis in Support of Site Selection for Surplus Weapons-Usable Plutonium Disposition* (DOE/MD-0009, July 1998) report and the *Plutonium Disposition Life-Cycle Costs and Cost-Related Comment Resolution Document* (DOE/MD-0013, November 1999), which covers recent life-cycle cost analyses associated with the preferred alternative, are available on the MD Web site at <http://www.doe-md.com> and in the public reading rooms at the following locations: Hanford, INEEL, Pantex, SRS, and Washington, D.C.

Hello my name is David M. Merrill. I live at 513 Wagon Court, Richland WA 99352. I'm interested in the MOX facility and in the documentation of that MOX facility. I would like to attend the meeting scheduled for tomorrow evening at the Hotel here in Richland. I have some opinions about the plutonium mixed oxide fuel fabrication facility and feel it should be located on or near the Hanford Site for the following reasons: First, as a chemist and member of the American Chemical Society, ACS, I am familiar with the talent and skills of many of my colleagues who live in this area. Many of these chemist have had experience working with plutonium and know the safety in handling procedures for both the chemical hazards and criticality safety issues. Please consider the talent base from which to draw employees when considering where to locate the MOX facility. Second, as co-president of the Citizens Advisory Committee to the Richland School Board, I am familiar with the educational concerns and desires of many of the Richland parents. We love this area and would like to see our children given a broad base education, however, we have a large percentage of parents very interested in providing their children with mathematical, engineering, and scientific skills. We would like to see challenging jobs provided for them here and we see the MOX facility as an opportunity for our children to work in an industry we believe in. Please consider the education base of the future employees when considering where to locate the MOX facility. Third, as a quality control chemist, I know how important a dry climate is when working with various hygroscopic materials. I realize all facilities handling plutonium use extensive air conditioning systems.

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PD006

#### PD006-1

#### Alternatives

DOE acknowledges the commentor's support for siting the MOX facility at Hanford. DOE believes that Hanford's efforts should remain focused on its current high-priority cleanup mission. The importance of cleanup at Hanford was taken into consideration in identifying preferred sites for surplus plutonium disposition activities. However, no decision has been made, and DOE will continue to consider Hanford for surplus plutonium disposition or other programs that are compatible with the Hanford mission.

Although the education base of the community is not a factor in facility siting selection, site workforce expertise and the existence of complementary activities and missions are considered. Decisions on the surplus plutonium disposition program at Hanford will be based on environmental analyses, technical and cost reports, national policy and nonproliferation considerations, and public input.

#### PD006-2

#### Cost

Power requirements at each of the candidate sites were taken into consideration, and it was determined that the sites under consideration had sufficient available capacity to cover the needs of the proposed MOX facility.

Because cost issues are beyond the scope of this SPD EIS, this comment has been forwarded to the cost analysis team for consideration. The *Cost Analysis in Support of Site Selection for Surplus Weapons-Usable Plutonium Disposition* (DOE/MD-0009, July 1998) report and the *Plutonium Disposition Life-Cycle Costs and Cost-Related Comment Resolution Document* (DOE/MD-0013, November 1999), which covers recent life-cycle cost analyses associated with the preferred alternative, are available on the MD Web site at <http://www.doe-md.com> and in the public reading rooms at the following locations: Hanford, INEEL, Pantex, SRS, and Washington, D.C.

But a dry climate provides a much better starting point for which, for facilities which require large amounts of conditioned air. It makes physical sense to locate MOX facility in this dry climate area where power is less expensive than say down south. As an example, the Seiman's Facility requires over a million dollars per year in electricity to operate. A similar MOX facility here would require close to that same amount. But in the south where electricity is more expensive and air conditioning more severe, I would guess you are looking at three times the cost in electricity. Please consider these types of technical details as a review for location for a new MOX facility.

2

PD006



United States  
Department  
of Energy

### Comment Form

NAME: (Optional) David M Merrill  
ADDRESS: 513 Wagon Ct  
TELEPHONE: (504) 375-8408  
E-MAIL: David.merrill@ntucl.com

1 D Did you consider converting to oxide at Pantex  
and using the commercial work force to run  
the MOX facility at FMEF, and sending  
immobilization to SRS?

2 3) Is there a potential for much more Pu either  
from within the US or even offer to convert  
foreign Pu to MOX.



WAD09

### WAD09-1

### Alternatives

The range of reasonable alternatives analyzed in this SPD EIS were developed using criteria listed in Section 2.3.1. The alternative suggested by the commentor was considered and eliminated because it involves placing the three proposed surplus plutonium disposition facilities at three different sites.

### WAD09-2

### DOE Policy

The end of the Cold War has resulted in unprecedented reductions in nuclear arms in both the United States and Russia. During the first week of September 1998, Presidents Clinton and Yeltsin held a Moscow summit and signed a statement of principles with the intention of removing approximately 50 t (55 tons) of plutonium from each country's stockpile. Further agreements on disarmament between the two nations may increase the amount of surplus plutonium in the future.

Understanding the economic dilemma in Russia, the U.S. Congress has appropriated funding for a series of small-scale tests and demonstrations of plutonium disposition technologies jointly conducted by the United States and Russia. For fiscal year 1999 (starting October 1998), Congress further appropriated funding to assist Russia in design and construction of a plutonium conversion facility and a MOX fuel fabrication facility. This funding would not be expended until the presidents of both countries signed a new agreement. Although the amount appropriated by Congress is not sufficient to fund the entire Russian surplus plutonium disposition program, the United States is working with Russia and other nations to resolve this issue.

**MOORE, VICTOR AND ROBERTA**  
**PAGE 1 OF 1**

FROM Victor + Roberta Moore  
 9149 W. Clearwater Pl.  
 Kennewick, WA. 99336 8/4/99

Concerning a Draft Environmental  
 Impact statement to expand the  
 Role of Hanford in plutonium Disposition.

After years of inadequate funding  
 to clean up Hanford - Why would  
 anyone want to expand ~~the~~  
 Facilities to accommodate materials sent  
 from other places?

What evidence does anyone have that  
 by getting more processes & more  
 materials, that the old waste  
 disposal problems will be addressed  
 + funded?

Contaminated Environments should  
 not be looking for more contaminants.  
 if clean up is a priority.

WAD06

**WAD06-1**

**Alternatives**

DOE acknowledges the commentor's opposition to the surplus plutonium disposition program at Hanford. DOE believes that Hanford's efforts should remain focused on its current high-priority cleanup mission. The importance of cleanup at Hanford was taken into consideration in identifying preferred sites for surplus plutonium disposition activities. However, no decision has been made, and DOE will continue to consider Hanford for surplus plutonium disposition or other programs that are compatible with the Hanford mission.



PACIFIC NORTHWEST NATIONAL LABORATORY

WALT APLEY

PAGE 1 OF 1

August 4, 1998 Public Meeting Comments on  
Surplus Plutonium Disposition Draft Environmental Impact Statement

Good Evening. My name is Walt Apley and I am the Deputy Director for Operations at the Pacific Northwest National Laboratory. One of the Laboratory's primary missions is to help apply Hanford Site assets to emerging national and international needs as well as new science-based missions. Given that role, I would like to offer three specific comments on the Surplus Plutonium Disposition Draft Environmental Impact Statement:

(1) Importance of Plutonium Disposition

There are few issues today in the world as important as safely and securely withdrawing plutonium from nuclear military programs and taking steps to ensure that such material can never again be used to build a nuclear weapon. To that end, Pacific Northwest National Laboratory staff are working in a wide range of technical areas, including detection, safe handling, and disposition - both in the United States and internationally. The EIS for Surplus Plutonium Disposition is an extremely important document that we all want to see completed as a sound, technically-defensible basis for moving forward for the timely disposition of this material.

1

(2) Role of Hanford

Currently the Draft EIS states a preference for using the Savannah River Site. Hanford was not selected, with one of the arguments being that DOE prefers that the cleanup mission remain Hanford's top priority. The cleanup mission is and will remain this site's #1 and overriding priority. But Hanford does have major assets (both physical and personnel) which are capable of making major contributions to the surplus plutonium disposition mission. The DOE budget will continue to face significant pressure and since existing facilities such as the Fuels and Materials Examination Facility may be able to do the job sooner and at a lower cost, we must retain the ability to use those resources.

2

(3) Fast Flux Test Facility

Currently the draft EIS states that DOE's preference is to produce MOX fuel and "irradiate in existing, commercial reactors". However, the U.S. - Russian Agreement on Management of Used Plutonium announced at the Gore-Kiriyenko working meeting on July 23-24, 1998 called for using "MOX fuel for nuclear power reactors of various types". Studies have shown that the Fast Flux Test Facility, if dedicated to the mission, could disposition the 33 t of surplus weapons plutonium well within the 25 year *Storage and Disposition Final PEIS* criterion using traditional enrichments and a standard core configuration, as well as produce valuable and needed medical isotopes. The FFTF disposition option should be given strong consideration.

3

I'd like to thank the people putting together this draft EIS: I know that it is both a challenge and an ordeal. But it is also critically important to a safe and secure future for all of us. Thank you.

WAD21

WAD21-1

General SPD EIS and NEPA Process

DOE acknowledges the commentor's reviews on the importance of this SPD EIS.

WAD21-2

Alternatives

DOE acknowledges the commentor's support for the surplus plutonium disposition program at Hanford. DOE believes that Hanford's efforts should remain focused on its current high-priority cleanup mission. The importance of cleanup at Hanford was taken into consideration in identifying preferred sites for surplus plutonium disposition activities. However, no decision has been made, and DOE will continue to consider Hanford for surplus plutonium disposition or other programs that are compatible with the Hanford mission, especially in regard to the use of existing facilities.

WAD21-3

Alternatives

DOE acknowledges the commentor's support of using MOX fuel to restart FFTF at Hanford. As discussed in Appendix D of the SPD Draft EIS, DOE did consider FFTF in the Storage and Disposition PEIS, but it was eliminated from further study because it was in a standby status and it could not satisfy the criterion of completing the disposition mission within 25 years using the historic FFTF plutonium enrichment specifications. Further, compared with the 2-3 percent plutonium content of spent fuel from commercial reactors, the spent fuel from FFTF would contain approximately 35 percent plutonium by weight. It is questionable whether this greater concentration of plutonium in the FFTF MOX spent fuel would meet repository acceptance criteria. Also, the FFTF liquid-metal reactor would not produce electricity, whereas using commercial light water reactors to dispose of surplus plutonium would generate revenues from the sale of electricity, which in turn would help defray the overall cost of using the MOX approach. As discussed in Section 1.7.4, Appendix D was deleted because none of the proposals to restart FFTF currently consider the use of surplus plutonium as a fuel source.

PEARSON, CHRISTINE  
PAGE 1 OF 4

US DOE needs to hear your voice NOW!

- |   |   |
|---|---|
| 1. Should Clean Up be the sole mission at Hanford?<br><u>Yes</u> No   | 1 |
| 2. Should the United States Government maintain its longstanding policy against the use of weapons Plutonium to fuel civilian nuclear reactors?<br><u>Yes</u> No  | 2 |
| 3. Which alternative would you prefer to see the US Department of Energy pursue:<br>Immobilization (encasement of plutonium in glass-like tombs) <u>Immobilization !!</u><br>Or<br>The MOX plan (burning plutonium to fabricate fuel for use in a civilian nuclear reactor)?  | 3 |
| 4. Should Plutonium, to be used for processing and fabrication of MOX fuel, be imported to the Hanford site along the Columbia River?<br>Yes <u>No</u>  | 4 |
| 5. How concerned are you about the transportation of Plutonium through the Northwest?<br>Not concerned slightly concerned very concerned <u>completely opposed</u><br>B. How concerned are you about the transport through the Northwest of fuel containing weapons Plutonium?<br>Not concerned Slightly concerned Very concerned <u>Completely opposed</u> | 4 |
| 6. Should commercial nuclear power plants be allowed to run on MOX fuel containing weapons Plutonium?<br>Yes <u>No</u><br>B. Should they be subsidized with tax dollars to do so?<br>Yes <u>No</u>  | 5 |
| 7. Should MOX fuel containing weapons Plutonium be used to restart the FFTF reactor at Hanford to produce Tritium for nuclear bombs?<br>Yes <u>No</u>   | 6 |

Name Christine Pearson  
Address #8 Strong Rd  
Phone Trout Lake, wa 98630

Please return this to:  
Hanford Action  
25-6 NW 23<sup>rd</sup> Place #406  
Portland, OR 97214  
(503) 235-2531

MD296

MD296-1

DOE Policy

DOE believes that Hanford's efforts should remain focused on its current high-priority cleanup mission. The importance of cleanup at Hanford was taken into consideration in identifying preferred sites for surplus plutonium disposition activities. However, no decision has been made, and DOE will continue to consider Hanford for surplus plutonium disposition or other programs that are compatible with the Hanford mission.

MD296-2

Nonproliferation

U.S. policy dating back to the Ford Administration has prohibited the commercial, chemical reprocessing and separation of plutonium from spent nuclear fuel. The use of U.S. surplus plutonium in existing domestic, commercial reactors does not involve reprocessing (reprocessing is a chemical separation of uranium, transuranic elements [including plutonium], and fission products from spent reactor fuel and the reuse of the plutonium and uranium to produce new fresh fuel). The proposed use of MOX fuel is consistent with the U.S. nonproliferation policy and would ensure that plutonium which was produced for nuclear weapons and subsequently declared excess to national security needs is never again used for nuclear weapons. Consistent with the U.S. policy of discouraging the civilian use of plutonium, a MOX facility would be built and operated subject to the following strict conditions: construction would take place at a secure DOE site, it would be owned by the U.S. Government, operations would be limited exclusively to the disposition of surplus plutonium, and the MOX facility would be shut down at the completion of the surplus plutonium disposition program.

MD296-3

Alternatives

DOE has identified as its preferred alternative the hybrid approach. Pursuing both immobilization and MOX fuel fabrication provides the United States important insurance against potential disadvantages of implementing either approach by itself. The hybrid approach also provides the best opportunity for U.S. leadership in working with Russia to implement similar options for reducing Russia's excess plutonium in parallel. Further, it sends the strongest possible signal to the world of U.S. determination to reduce stockpiles of surplus plutonium as quickly as possible and in a manner that would make it technically difficult to use the plutonium in nuclear weapons again.

Under the hybrid approach, approximately 33 t (36 tons) of clean plutonium metal and oxides would be used to fabricate MOX fuel, which would be irradiated in domestic, commercial reactors. DOE has determined that 17 t (19 tons) of the surplus plutonium would be immobilized due to the complexity, timing, and cost that would be involved in purifying those plutonium materials to make them suitable for use in MOX fuel. Therefore, fabricating all 50 t (55 tons) of surplus plutonium into MOX fuel is not considered a reasonable alternative at this time and is not analyzed; however, immobilizing all of the surplus plutonium is analyzed. Given the variability in purity of the surplus plutonium to be dispositioned, some of the plutonium currently considered for MOX fuel fabrication may also need to be immobilized. The incremental impacts that would be associated with a small shift in materials throughput are discussed in Section 4.30.

#### MD296-4

#### Transportation

The shipment of nuclear material (e.g., depleted uranium) using commercial carriers would be the subject of detailed transportation plans in which routes and specific processing locations would be discussed. These plans are coordinated with State, tribal, and local officials. The shipment of waste would be in accordance with the decisions reached on the *Final Waste Management Programmatic Environmental Impact Statement for Managing Treatment, Storage, and Disposal of Radioactive and Hazardous Waste* (DOE/EIS-0200-F, May 1997) and the *WIPP Disposal Phase Final Supplemental EIS* (DOE/EIS-0026-S-2, September 1997). The transportation of special nuclear materials is the subject of detailed planning with DOE's Transportation Safeguards Division. The dates and times that specific transportation routes would be used for special nuclear materials are classified information; however, the number of shipments that would be required, by location, has been included in this SPD EIS. Additional details are provided in *Fissile Materials Disposition Program SST/SGT Transportation Estimation* (SAND98-8244, June 1998), which is available on the MD Web site at <http://www.doe-md.com>.

**MD296-5****MOX Approach**

Use of MOX fuel in domestic, commercial reactors is not proposed in order to subsidize the commercial nuclear power industry. Rather, the purpose of this proposed action is to safely and securely disposition surplus plutonium by meeting the Spent Fuel Standard. The Spent Fuel Standard, as identified by NAS and modified by DOE, is to make the surplus weapons-usable plutonium as inaccessible and unattractive for weapons use as the much larger and growing quantity of plutonium that exists in spent nuclear fuel from commercial power reactors. The MOX facility would produce nuclear fuel that would displace LEU fuel that utilities would have otherwise purchased. If the effective value of the MOX fuel exceeds the cost of the LEU fuel that it displaced, then the contract provides that money would be paid back to the U.S. Government by DCS based on a formula included in the DCS contract. The commercial reactors selected for the MOX approach include only those reactors whose operational life is expected to last beyond the life of the surplus plutonium disposition program.

**MD296-6****DOE Policy**

As discussed in Section 1.7.4, Appendix D was deleted because none of the proposals to restart FFTF currently consider the use of surplus plutonium as a fuel source. In December 1998, the Secretary of Energy decided that FFTF would not play a role in producing tritium.

Additional Comments:

We need to continue to stop the  
misuse of Nuclear proliferation & spend \$  
on Research on cleaning up waste sites.  
The Tri cities area is one of the highest  
incidence areas of Cancer in the Nation.  
The Hanford being so close to the River is  
and has created a distribution system for  
Nuclear leaks & waste products.  
More energy needs to be devoted to alternative  
power sources such as solar & wind generated  
power. Also we need more education to help  
people understand how to use less energy & conserve more  
energy so there is not as much demand for  
Nuclear power.

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MD296

MD296-7

DOE Policy

DOE is implementing the President's nonproliferation policy by converting surplus plutonium to forms that cannot be reused in nuclear weapons again. Cleanup of DOE's former weapons production sites including research and development has continued to receive substantial funding allocations from the U.S. Congress every year. Funds for the surplus plutonium disposition program and the environmental cleanup program come from different appropriation accounts allocated by the U.S. Congress that cannot be used interchangeably.

MD296-8

DOE Policy

DOE acknowledges the commentor's support for alternative energy sources. The purpose of the surplus plutonium disposition program is not to provide an alternative source of energy but to disposition plutonium in an environmentally safe and timely manner. Further, DOE acknowledges and supports the importance of public education. DOE has established reading rooms near DOE sites to provide easy access to information about DOE programs and encourages the use of this source of information. DOE has numerous Web sites, including one for MD (<http://www.doe-md.com>), that also provide up-to-date information about DOE programs. Likewise, a number of utilities also have their own Web sites with educational material.

**MEMORANDUM**

*CITY OF RICHLAND*  
*City Manager's Office*

TO: Brook Anderson

FROM: Pam Brown, Hanford Analyst

SUBJECT: Response to an Invitation From Secretary Peña to Send Him Information about Cost & Schedule Savings of Locating Plutonium Disposition Functions at Hanford and Documentation of a DOE-HQ Bias Towards Savannah River in the Previous Fissile Material EIS

DATE: October 17, 1997

When Secretary Peña visited Hanford, the local elected officials discussed our strong interest in seeing existing Hanford facilities used for plutonium disposition functions. We pointed out the significant time and schedule savings of using existing Hanford facilities that were built to house mixed oxide fuel fabrication, rather than build new facilities at another site.

We explained that in observing the process followed in developing the Fissile Material Environmental Impact Statement (EIS) last year, we believe that there was a clear bias on the part of Materials Disposition Staff towards placing these functions at the Savannah River Site. In the current EIS process, MD staff are discrediting the usefulness of our Fuels & Materials Examination Facility (FMEF) by ignoring and even denying the existence of reports that explain in detail the capabilities of FMEF.

Secretary Peña invited us to send him a package of material documenting the capabilities of our Hanford facilities. He also asked that we provide documentation of what we believe is a clear bias by DOE-HQ staff in favor of the Savannah River Site. He asked that we send this package to you so that it would actually get to him.

The documents enclosed have been submitted by our communities, DOE-Richland and the Siemens Power Corporation to the Office of Fissile Materials Disposition over the last year and a half. Due to the large volume of material we are sending, I have tried to highlight the information that is of most concern. If you have any questions about our position or the documents enclosed please call me at 509-943-7348.

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WAD16

**WAD16-1****Alternatives**

DOE acknowledges and appreciates the commentor's continued interest in the surplus plutonium disposition program, and support for siting the proposed surplus plutonium disposition facilities at Hanford. DOE believes that Hanford's efforts should remain focused on its current high-priority cleanup mission. The importance of cleanup at Hanford was taken into consideration in identifying preferred sites for surplus plutonium disposition activities. However, no decision has been made, and DOE will continue to consider Hanford for surplus plutonium disposition or other programs that are compatible with the Hanford mission, especially in regard to the use of existing facilities.

DOE has prepared this SPD EIS in accordance with the provisions of NEPA (42 U.S.C. 4321 et seq.) and the related CEQ and DOE implementation regulations (40 CFR 1500 through 1508 and 10 CFR 1021, respectively). The primary objective of the EIS is a comprehensive description of proposed surplus plutonium disposition actions and alternatives and their potential environmental impacts. DOE has analyzed each environmental resource area in a consistent manner across all the alternatives to allow for a fair comparison among the alternatives and among the candidate sites for surplus plutonium disposition facilities. The use of FMEF in the surplus plutonium disposition program is considered in this EIS under Alternatives 2, 4, 6, 8, 10, and 11. Decisions on the surplus plutonium disposition program will be based on environmental analyses, technical and cost reports, national policy and nonproliferation considerations, and public input.

The attachments to the commentor's letter represent comments previously submitted and reviewed by MD, and thus addressed in separate responses at that time.

Gordon J. Rogers  
1108 N Road 36  
Pasco, WA 99301

Phone/ Fax 509 547-7403

September 16, 1998

Mr. Howard R. Canter  
Acting Director  
Office of Fissile Materials Disposition  
U.S. Department of Energy  
P.O. Box 23786  
Washington, DC 20026-3786

Dear Mr. Canter:

I submit the following comments on the Surplus Plutonium Disposition  
Draft Environmental Impact Statement.

I find the preferred alternatives for the subject EIS to be fatally flawed  
and completely unacceptable for the following reasons.

- Cost savings from the use of the FMEF at Hanford are not considered.
- The cleanup mission is critical at all the candidate sites. No evidence is given to support the dismissal of Hanford, and the implication is that cleanup at SRS is not equally vital. New missions at a site are accommodated by management actions, and are not an environmental issue.
- There is essentially no difference between the sites in terms of environmental impacts. Therefore, we taxpayers demand that least cost to the government should be the deciding factor.
- The transportation impacts are essentially the same if the pit disassembly and conversion and the MOX fuel fabrication are located at the same site. The statement that the FMEF cannot house both function without new construction is not supported by available studies.

The draft EIS is not a balanced and objective assessment and does not provide a legitimate basis for a decision. Instead, it omits comparative costs and makes unjustified assumptions favoring the SRS site. An objective evaluation of comparative costs must be made; and the document

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MD241

## MD241-1

## Alternatives

DOE acknowledges the commentor's opposition to the announced preference for siting immobilization and MOX facilities at SRS rather than at Hanford. The preferred alternative was chosen based on the best information and analyses available; all sites were equally considered based on this information. DOE believes that Hanford's efforts should remain focused on its current high-priority cleanup mission. The importance of cleanup at Hanford was taken into consideration in identifying preferred sites for surplus plutonium disposition activities. However, no decision has been made, and DOE will continue to consider Hanford for surplus plutonium disposition or other programs that are compatible with the Hanford mission, especially in regard to the use of existing facilities.

Because cost issues are beyond the scope of this SPD EIS, this comment has been forwarded to the cost analysis team for consideration. The *Cost Analysis in Support of Site Selection for Surplus Weapons-Usable Plutonium Disposition* (DOE/MD-0009, July 1998) report and the *Plutonium Disposition Life-Cycle Costs and Cost-Related Comment Resolution Document* (DOE/MD-0013, November 1999), which covers recent life-cycle cost analyses associated with the preferred alternative, are available on the MD Web site at <http://www.doe-md.com> and in the public reading rooms at the following locations: Hanford, INEEL, Pantex, SRS, and Washington, D.C.

## MD241-2

## General SPD EIS and NEPA Process

DOE has prepared this SPD EIS in accordance with the provisions of NEPA (42 U.S.C. 4321 et seq.) and the related CEQ and DOE implementation regulations (40 CFR 1500 through 1508 and 10 CFR 1021, respectively). The primary objective of the EIS is a comprehensive description of proposed surplus plutonium disposition actions and alternatives and their potential environmental impacts. DOE has analyzed each environmental resource area in a consistent manner across all the alternatives to allow for a fair comparison among the alternatives and among the candidate sites for proposed surplus plutonium disposition facilities.

**ROGERS, GORDON J.**  
**PAGE 2 OF 2**

must be extensively revised to have a credible basis for site selection.

| 2

I will appreciate receiving a copy of the response to comments and any future documents on this subject.

Sincerely,



MD241

Although cost will be a factor in the decisionmaking process, this SPD EIS contains environmental impact data and does not address the costs associated with the various alternatives. Cost impacts are addressed in the reports identified in response MD241-1.





United States  
Department  
of Energy

Comment Form

AUG 23, 1998

NAME: (Optional) STEVE ROYAL  
ADDRESS: PO BOX 4871 VANCOUVER, WA 98662  
TELEPHONE: ( )  
E-MAIL: RE: SURPLUS PLUTONIUM DISPOSITION DRAFT  
ENVIRONMENTAL IMPACT STATEMENT  
U.S. DOE OFFICE OF FISSILE MATERIALS DISPOSITION

I'm TELLING YOU THIS:

- 1) I DO NOT WANT NOR NEED A UNITED STATES WHICH  
IS ENGAGING, DANGEROUSLY, IN THE PROLIFERATION OF  
NEUTRON (LONG 1/2 LIVED) MATERIAL WHICH HAS NO  
ABILITY TO BREAKDOWN & BE EXHAUSTED AFTER ASSEMBLY.
- 2) I DO NOT WANT NOR NEED A UNITED STATES WHICH  
IS ENGAGING & OR APPEARS TO BE ENGAGING IN THE COMMERCIAL-  
ING OF NEUTRON (LONG 1/2 LIVED) MATERIAL.
- 3) I DO NOT WANT NOR NEED A UNITED STATES WHICH  
IS ENGAGING & OR APPEARS TO BE ENGAGING IN THE MOVEMENT  
OF NEUTRON (LONG 1/2 LIVED) MATERIAL ON THE U.S. INTERSTATE  
ROADS, HIGHWAYS & COUNTY ROADS; ON U.S. WATERWAYS OR  
INTERNATIONAL WATERWAYS; ON RAILROAD LINES; OR IN THE  
AIR TRAFFIC LANE ANYWHERE.
- 4) GET OUT OF THE U.S. MILITARY/MONOPOLY ENERGY/GRADUATE  
COLLEGE RESEARCH/CORPORATE WELFARE INDUSTRIAL COMPLEX  
SYNDROM BUSINESS IN ORDER TO SAVE OUR ONE & ONLY EARTH  
FROM THE MOST LETHAL POISON KNOWN.

S. R.

FD143-1

DOE Policy

DOE acknowledges the commentor's opposition to nuclear material management. The goal of the surplus plutonium disposition program is to reduce the threat of nuclear weapons proliferation worldwide by conducting disposition of surplus plutonium in the United States in an environmentally safe and timely manner. This would require the handling and transportation of the surplus plutonium. Transportation of special nuclear materials would use DOE's SST/SGT system. Since the establishment of the DOE Transportation Safeguards Division in 1975, the SST/SGT system has transported DOE-owned cargo over more than 151 million km (94 million mi) with no accidents causing a fatality or release of radioactive material.

1

FD143

SEYER, SAUL  
PAGE 1 OF 1

Saul Seyer  
Helden Village  
#600 Step 2  
Chelan, WA 98816

Secretary of Energy,  
U.S. Department of Energy  
1000 Independence Avenue, SW  
Washington D.C. 20585

Dear Secretary:

I'm writing in concern to the ~~the~~ burning of MOX  
Fuels, at sites such as Hanford. This is unacceptable  
and cannot continue. The preservation of our environment  
is by far more important than the additional  
energy that can be gained. It is better to dispose  
of the stuff now instead of increasing the toxicity  
of it. Thank you for your understanding in the  
matter.

Sincerely, A concerned citizen,

Saul Seyer

FD330

#### FD330-1

#### Alternatives

DOE acknowledges the commentor's opposition to the MOX approach. Use of MOX fuel in domestic, commercial reactors is not proposed in order to produce electricity. Rather, the purpose of this proposed action is to safely and securely disposition surplus plutonium by meeting the Spent Fuel Standard. The Spent Fuel Standard, as identified by NAS and modified by DOE, is to make the surplus weapons-usable plutonium as inaccessible and unattractive for weapons use as the much larger and growing quantity of plutonium that exists in spent nuclear fuel from commercial power reactors. With immobilization or MOX, the material would be disposed of in the same potential geologic repository.

DOE believes that Hanford's efforts should remain focused on its current high-priority cleanup mission. The importance of cleanup at Hanford was taken into consideration in identifying preferred sites for surplus plutonium disposition activities. However, no decision has been made, and DOE will continue to consider Hanford for surplus plutonium disposition or other programs that are compatible with the Hanford mission.


**STMC SISU TECHNICAL AND MANAGEMENT CONSULTING**

**RONALD C. LIIKALA**

**PAGE 1 OF 3**

**Re: Comments on the Plutonium Disposition Draft Environmental Impact Statement**

I provided oral comments at the meeting in Richland, Washington on the Draft EIS and stated that I would submit my comments in writing, which are on the attached 2 pages.

Ronald C. Liikala   
STMC Sisuu Technical and Management Consulting  
718 Lynnwood Loop  
Richland, WA. 99352

FD320

My three principal concerns about the draft EIS are 1) the alternatives selected for evaluation, 2) omission of a cost-benefit analysis, and 3) the justification for locating the MOX fuel fabrication facility at SRS.

1) The alternatives evaluated omits what appears to me to be a reasonable alternative, namely:

- Pu Disassembly and Conversion at Pantex;
- MOX Fuel Fabrication in the FMEF at Hanford;
- Pu Conversion and Immobilization at SRS.

Section 1502.14 of 40 CFR Chapter V states, "agencies shall rigorously explore and objectively evaluate all reasonable alternatives, and for alternatives which were eliminated from detailed study, briefly discuss the reasons for their being eliminated."

The reason why I believe it is reasonable is because it takes advantage of existing infrastructure (i.e., Pit storage at Pantex, the FMEF at Hanford, and the capabilities at SRS for storing and converting nonpit plutonium materials into plutonium dioxide suitable for immobilization coupled along with the immobilization capabilities at SRS. Completion of the existing FMEF for fabricating MOX fuel should cost less than building a new fuel fabrication facility at any of the DOE sites.

2) A cost-benefit analysis was not included in the draft EIS. I question whether the omission of such analysis is in keeping with the letter/spirit of NEPA.

I refer you to the Final Generic Environmental Statement on Use of Recycle Plutonium in Mixed Oxide Fuel in Light Water Cooled Reactors issued by the NRC in August 1976.

In a January 20, 1975 letter to the NRC, the Presidents Council on Environmental Quality expressed the view that, the draft EIS was incomplete because it failed to present a detailed and comprehensive analysis of the environmental impacts of potential diversion of special nuclear materials and of alternative safeguards programs to protect the public from such a threat. The Council believed that such a presentation should be made by the NRC before its final decisions on plutonium recycle. Reflecting on this, the NRC took the position that a cost-benefit analysis of alternative safeguards programs should be prepared and set forth in draft and final environmental impact statements before any Commission is reached in draft and final environmental impact statements.

FD320

## FD320-1

## General SPD EIS and NEPA Process

DOE has prepared this SPD EIS in accordance with the provisions of NEPA (42 U.S.C. 4321 et seq.) and the related CEQ and DOE implementation regulations (40 CFR 1500 through 1508 and 10 CFR 1021, respectively). The primary objective of the EIS is a comprehensive description of proposed surplus plutonium disposition actions and alternatives and their potential environmental impacts. DOE has analyzed each environmental resource area in a consistent manner across all the alternatives to allow for a fair comparison among the alternatives and among the candidate sites for surplus plutonium disposition facilities.

As discussed in Section 2.3.1 of the SPD Draft EIS, the range of reasonable alternatives analyzed was developed using equally weighted screening criteria. Over 64 options were evaluated, yielding a range of 23 reasonable alternatives that met all the criteria. Options that involved siting the proposed surplus plutonium disposition facilities at three different sites were eliminated because the goals of minimizing worker and public exposure to radiation, minimizing proliferation concerns associated with transportation, and reducing infrastructure costs would not be met.

## FD320-2

## Cost

Although cost will be a factor in the decisionmaking process, this SPD EIS contains environmental impact data and does not address the costs associated with the various alternatives. A separate cost report, *Cost Analysis in Support of Site Selection for Surplus Weapons-Usable Plutonium Disposition* (DOE/MD-0009, July 1998), which analyzes the site-specific cost estimates for each alternative, was made available around the same time as the SPD Draft EIS. This report and the *Plutonium Disposition Life-Cycle Costs and Cost-Related Comment Resolution Document* (DOE/MD-0013, November 1999), which covers recent life-cycle cost analyses associated with the preferred alternative, are available on the MD Web site at <http://www.doe-md.com> and in the public reading rooms at the following locations: Hanford, INEEL, Pantex, SRS, and Washington, D.C.

I believe that the draft EIS is incomplete without including the alternative on Pit Disassembly and Conversion at Pantex, MOX fabrication in FMEF at Hanford and Pu Conversion and Immobilization at SRS and by not including a cost-benefit analysis of alternatives.

2

3) The draft EIS makes mention SRS is preferred for the MOX facility because this activity complements existing missions and takes advantage of existing infrastructure and staff expertise. There was no delineation of in the draft EIS how it compliments existing missions or takes advantage of existing infrastructure and staff expertise. Since the MOX facility will be leased to the contractor and the contractor is responsible for obtaining a license from the Nuclear Regulatory Commission (NRC), I am wondering about why DOE feels its field office and current site contractors will have a significant role in the construction and operation of the MOX facility. For example, here at Hanford, the Washington Power Supply System (WPPSS) leases the site for its plants from DOE and the role of the field operations office is basically limited to site-wide emergency planning. Safety, safeguards and security at the WPPSS site at Hanford are the under the purview of NRC.

3

FD320

### FD320-3

### Alternatives

DOE does not plan for facility site contractors to have a significant role in the construction and operation of the MOX facility. The MOX facility would be built and operated subject to the following strict conditions: construction would take place at a secure DOE site, it would be owned by the U.S. Government, operations would be limited exclusively to the disposition of surplus plutonium, and the MOX facility would be shut down at the completion of the surplus plutonium disposition program. For reactor irradiation, the NRC license would authorize only the participating reactors to use MOX fuel fabricated from surplus plutonium, and the irradiation would be a once-through cycle with no reprocessing.

DOE entered into a contract with DCS to construct and operate the MOX facility at one of the four candidate sites evaluated in this SPD EIS. This contract was awarded through a competitive procurement process. Since the MOX facility would use existing site services and infrastructure, the site contractor would be responsible for supporting the construction and operation of the facility to the extent required to ensure availability of those services. The DOE field office would also be involved to a limited extent, in its oversight role for the entire DOE site, and for services such as those identified by the commentor.

SUNDSTROM, GLENN  
PAGE 1 OF 1

DEPT. OF ENERGY

8/13/98

OFFICE OF FISSILE MATERIALS DISPOSITION

P.O. Box 23756

WASHINGTON, D.C. 20026-3756

GENTLE PEOPLE:

I OPPOSE ANY USE OF MOX FUEL IN CIVILIAN OR COMMERCIAL REACTORS IN THE UNITED STATES, AS LONG AS THE LIMIT OF LIABILITY CLAUSE IS INCLUDED IN ANY FEDERAL LEGISLATION SUCH AS THE PRICE ANDERSON ACT.

PUBLIC REACTION WAS DECISIVE IN 1994 WHEN MR. FERGUSON AND HIS "ISSIAH" PROJECT WERE TOLD TO COME BACK TO GRAYS HARBOR WITH THEIR PROPOSAL TO "BURN" PLUTONIUM, AT THE THEN DECOMMISSIONED WPPSS #3 AND #5 SITE AT SATSOP, WHEN THEY (COLUMBIA NUCLEAR) HAVE BECOME SUCCESSFUL IN REMOVING THE LIMIT OF LIABILITY CLAUSE IN THE PRICE ANDERSON ACT.

EVERY CITY COUNCIL, HOQUIAM, ABERDEEN, MONTESANO, ELMA AND MCLURE, GAVE MR. FERGUSON THE SAME MESSAGE. "WHEN YOU THE BONDHOLDERS, STOCKHOLDERS AND CEO'S ASSUME THE LIABILITY LIKE ANY OTHER AMERICAN INDUSTRY, THEN WE WILL WELCOME YOU WITH OPEN ARMS."

SINCERELY,  
*Glenn Sundstrom* O.D.  
45 E SATSOP RD.  
ELMA, WA. 98541

360 482 5720

MD088

MD088-1

MOX Approach

DOE acknowledges commentor's opposition to the use of MOX fuel in domestic, commercial reactors.



United States  
Department  
of Energy

TO: OFFICE OF FISSILE MATERIALS DISPOSITION  
@ FAX 1-800-820-5156  
**Comment Form**  
Page 1

NAME: (Optional) Joseph Teal  
ADDRESS: 86103 N. YAKIMA RIVER DRIVE ; WEST RICHLAND, WA. 99353  
TELEPHONE: ( ) - -  
E-MAIL: -  
COMMENTS ON THE DRAFT SURPLUS PLUTONIUM DISPOSITION  
ENVIRONMENTAL IMPACT STATEMENT

These comments document my amazement at and protest of the recent decision to construct new facilities for pit disassembly and mixed-oxide fuel fabrication at Pantex and Savannah River rather than take advantage of existing facilities. The justifications for construction of new facilities that were presented in the PEIS, particularly the cost estimates and transportation issues, are so notably wrong as to display departure from sound judgment and common sense. Careful review of the analyses in these two areas may reveal a contrived backfit to justify a predetermined decision. It is requested that an unbiased independent review of these two justifications be performed by an agency such as the OMB.

Over the past 20 or so years, the U.S. Department of Energy has launched projects involving approximately one hundred new major facilities. Of these, perhaps twenty-five have actually been started, a dozen have been completed, and of the twelve, over half have either failed to perform due to technical inadequacies or have never been used due to program direction change. Notable examples of plans and/or intentions gone awry include the 371/274 buildings at Rocky Flats, the PF-41 Storage Vault at Los Alamos, the Fuels and Materials Examination Facility (FMEF) at Hanford, the Fuel Processing Facility at INEEL, the New Special Recovery Facility at SRS, etc. It is hoped that DOE does not repeat or continue this cycle. (continued on page 2)

#### FD301-1

#### Cost

DOE acknowledges the commentor's support for involving existing facilities such as FMEF at Hanford to disposition surplus plutonium. However, according to a technical review of available facilities and an independent cost study, constructing new facilities is the option involving the least risk and the best use of DOE's limited resources. Frequently it is more expensive to try to retrofit for a particular mission a building that was originally designed for another mission. While it is true that FMEF was originally designed to produce MOX fuel for FFTF, it was not designed to accommodate a pit conversion facility as well. Space requirements would make it extremely difficult to use the facility for two missions.

Location of the MOX facility in FMEF by itself was never considered because locating a single proposed facility at three different sites would not meet the screening criteria of minimizing worker and public exposure to radiation, minimizing proliferation concerns associated with transportation, and reducing infrastructure costs.

Although cost will be a factor in the decisionmaking process, this SPD EIS contains environmental impact data and does not address the costs associated with the various alternatives. A separate cost report, *Cost Analysis in Support of Site Selection for Surplus Weapons-Usable Plutonium Disposition* (DOE/MD-0009, July 1998), which analyzes the site-specific cost estimates for each alternative, was made available around the same time as the SPD Draft EIS. This report and the *Plutonium Disposition Life-Cycle Costs and Cost-Related Comment Resolution Document* (DOE/MD-0013, November 1999), which covers recent life-cycle cost analyses associated with the preferred alternative, are available on the MD Web site at <http://www.doe-md.com> and in the public reading rooms at the following locations: Hanford, INEEL, Pantex, SRS, and Washington, D.C. Decisions on the surplus plutonium disposition program at Pantex will be based on environmental analyses, technical and cost reports, national policy and nonproliferation considerations, and public input. DOE will announce its decisions regarding facility siting and approach to surplus plutonium disposition in the SPD EIS ROD.

FD301

TEAL, JOSEPH  
PAGE 2 OF 2



United States  
Department  
of Energy

**Comment Form**  
Page 2

NAME: (Optional) Joseph Teal  
ADDRESS: \_\_\_\_\_  
TELEPHONE: ( ) \_\_\_\_\_  
E-MAIL: \_\_\_\_\_

These major facility acquisition efforts have averaged expenditures in the range of one-half billion dollars per year for the last twenty years.

Now comes another acquisition program to build all-new facilities for disassembly of weapons pits, fabrication of mixed-oxide fuel, and storage of plutonium.

DOE's failure to make use of existing facilities, particularly the EMEF at Hanford, for this work displays egregious disregard and departure from common sense and sound conduct of business.

Additionally, the DOE arbitrarily refused to consider and analyze the use of the WNP-1 Support Building for this work. This facility, in combination with the EMEF offers an abundance of readily available, clean, hardened, NRC licensable space that eliminates the need for any new construction and thus poses very substantial cost savings with no environmental impacts.

CC: ATTENTION: DOC HASTINGS  
@fax 1-202 225-3251

FD301

**FD301-2**

**Alternatives**

DOE believes that Hanford's efforts should remain focused on its current high-priority cleanup mission. The importance of cleanup at Hanford was taken into consideration in identifying preferred sites for surplus plutonium disposition activities. However, no decision has been made, and DOE will continue to consider Hanford for surplus plutonium disposition or other programs that are compatible with the Hanford mission, especially in regard to the use of existing facilities.



TRI-CITY INDUSTRIAL DEVELOPMENT COUNCIL  
PAGE 1 OF 6



TRI-CITY INDUSTRIAL DEVELOPMENT COUNCIL

901 N. Colorado, Kennewick, WA 99336-7685 USA 1-800-TRI-CITY 509-733-1000 509-735-6609 fax tridec@owt.com www.owt.com/tridec

STATEMENT REGARDING THE  
DEPARTMENT OF ENERGY'S DRAFT  
ENVIRONMENTAL IMPACT STATEMENT  
FOR  
SURPLUS PLUTONIUM DISPOSITION  
RICHLAND, WASHINGTON  
AUGUST 4, 1998

Thank you for the opportunity to present the views of our organization on this issue, which is of great importance to the Tri-City area. The Tri-City Industrial Development Council (TRIDEC) is a local non-profit organization whose interests are in the economic development and vitality of this area. Our membership is composed of over 500 local business firms, individuals and organizations having a commitment to the Tri-City area.

As we have indicated in previous statements and testimony on this subject, we support the plans to vitrify and dispose of the scrap plutonium containing materials in a national repository. We also support the Department's plans to dispose of the excess plutonium by irradiation in a commercial power reactor through the use of a mixed oxide fuel (MOX).

However, we have substantial and significant concerns with the adequacy, objectivity, and balance evident in the Draft EIS that we are commenting on tonight. This document as written is so faulted that it should be withdrawn and extensively revised to reflect a comprehensive and balanced assessment of the siting alternatives for the plutonium disposal program in accordance with NEPA program requirements. The document as written does not provide such an assessment. I will illustrate some of our concerns in this regard.

• Scrap Plutonium Immobilization Facility

The draft EIS states that a selection of Savannah River as the site for this facility was made in 1997 in the NOI for this EIS. This selection decision was made in effect without the performance of EIS evaluations. A review of the site impacts contained in this Draft EIS does not show any significant difference between the sites from the construction of new immobilization facilities. Consideration was not given in this Draft EIS to the construction of new plutonium storage facilities at Savannah River to support the scrap disposal program.

It is recognized that Savannah River currently has a waste vitrification facility, the DWPF, in operation, which would be utilized to encase the solidified plutonium disposal capsules.

1

WAD18

WAD18-1

Alternatives

DOE acknowledges commentors' support for the hybrid approach. Pursuing both immobilization and MOX fuel fabrication provides the United States important insurance against potential disadvantages of implementing either approach by itself.

WAD18-2

General SPD EIS and NEPA Process

DOE has prepared this SPD EIS in accordance with the provisions of NEPA (42 U.S.C. 4321 et seq.) and the related CEQ and DOE implementation regulations (40 CFR 1500 through 1508 and 10 CFR 1021, respectively). The primary objective of the EIS is a comprehensive description of proposed surplus plutonium disposition actions and alternatives and their potential environmental impacts. DOE has analyzed each environmental resource area in a consistent manner across all the alternatives to allow for a fair comparison among the alternatives and among the candidate sites for surplus plutonium disposition facilities.

WAD18-3

General SPD EIS and NEPA Process

DOE has prepared this SPD EIS in accordance with the provisions of NEPA (42 U.S.C. 4321 et seq.) and the related CEQ and DOE implementation regulations (40 CFR 1500 through 1508 and 10 CFR 1021, respectively). In accordance with CEQ Section 1502.14(e), DOE identified its preferred alternative in the SPD Draft EIS so the public could understand DOE's orientation and provide comment. Prior to the SPD Draft EIS being published, DOE indicated using the can-in-canister technology at SRS would be part of DOE's preferred alternative for immobilization. Although SRS has been identified as the preferred site for the immobilization facility, this is only DOE's preference; it is not a decision. Decisions on the surplus plutonium disposition program at INEEL will be based on public input, environmental analyses, technical and cost reports, and national policy and nonproliferation considerations. DOE will announce its decisions regarding facility siting and approach to surplus plutonium disposition in the SPD EIS ROD.

Comment Documents and Responses—Washington

# TRI-CITY INDUSTRIAL DEVELOPMENT COUNCIL

## PAGE 2 OF 6

Hanford is in the process of awarding contracts for the construction of a waste vitrification facility for the processing of its tank wastes, which could perform this same function.

4

The comparative environmental impacts at the two sites for the new facilities were essentially equal. The additional cost for new plutonium storage facilities at Savannah River were apparently not a factor in this evaluation.

5

### • MOX Fuel Fabrication Facility

The decision to locate this facility at Savannah River in preference to Hanford is based upon the administrative decision that this program would complement other Savannah River site missions and utilize existing site infrastructure and site expertise. Since DOE is currently soliciting proposals from vendors for the installation and operation of the MOX process in DOE provided facilities, this logic is questionable to say the least since Savannah River has not had previous experience with either MOX fuels or commercial reactor fuel development or manufacturing.

6

Another example of the lack of objectivity in this report is the utilization of a commercial UF<sub>6</sub>-UO<sub>2</sub> commercial facilities located in North Carolina in the evaluations of Hanford. Commercial facilities, which are located in Richland, should have been utilized in the Hanford evaluations to provide a balanced perspective.

7

The most significant issue; however, is the lack of a cost comparison between utilization of the existing Fuels and Materials Examination Facility (FMEF) at Hanford and the construction of a new MOX manufacturing facility at Savannah River. In a time of limited DOE budget the added costs for new unnecessary facilities can only reduce the already constrained Environmental Management cleanup program funding. We understand that DOE has studies available, which identify the potential cost savings available from the siting of this facility in the FMEF. These studies should be available for public review, rather than not addressing this issue in the Draft EIS.

8

A final issue is the rationale that the Hanford cleanup program is critical and should not be distracted by new programs at Hanford. Savannah River has a critical cleanup program underway which is of approximately the same yearly size as the Hanford program. What we are really addressing in this case is management effectiveness and available EM program funding.

9

The Governor of the State of Washington, Gary Locke, has stated in a letter to Secretary Peña that he would accept a MOX program at Hanford so long as DOE cleanup program commitments under the TPA are met. (Copy attached for entry into hearing record.)

WAD18

## WAD18-4

## Alternatives

For immobilization alternatives, modification of FMEF at Hanford was considered, with construction of new immobilization facilities considered only at SRS. In addition, this SPD EIS analyses assume that either the SRS DWPF or the Hanford HLWVF would be available to support canister-filling immobilization operations associated with the surplus plutonium disposition program. DOE is presently considering a replacement process for the in-tank precipitation (ITP) process at SRS. The ITP process was intended to separate soluble high-activity radionuclides (i.e., cesium, strontium, uranium, and plutonium) from liquid HLW before vitrifying the high-activity fraction of the waste in DWPF. The ITP process as presently configured cannot achieve production goals and safety requirements for processing HLW. Three alternative processes are being evaluated by DOE: ion exchange, small tank precipitation, and direct grout. DOE's preferred immobilization technology (can-in-canister) and immobilization site (SRS) are dependent upon DWPF providing vitrified HLW with sufficient radioactivity. DOE is confident that the technical solution will be available at SRS by using radioactive cesium from the ion exchange or small tank precipitation process. A supplemental EIS (DOE/EIS-0082-S2) on the operation of DWPF and associated ITP alternatives is being prepared.

## WAD18-5

## Cost

Because cost issues are beyond the scope of this SPD EIS, this comment has been forwarded to the cost analysis team for consideration. The *Cost Analysis in Support of Site Selection for Surplus Weapons-Usable Plutonium Disposition* (DOE/MD-0009, July 1998) report and the *Plutonium Disposition Life-Cycle Costs and Cost-Related Comment Resolution Document* (DOE/MD-0013, November 1999), which covers recent life-cycle cost analyses associated with the preferred alternative, are available on the MD Web site at <http://www.doe-md.com> and in the public reading rooms at the following locations: Hanford, INEEL, Pantex, SRS, and Washington, D.C.

## WAD18-6

## Alternatives

The preferred alternative for siting the MOX facility at SRS was chosen based on the best information and analyses available; all sites were equally considered based on this information.

**WAD18-7**

**MOX Approach**

Depleted uranium dioxide is required for the ceramic immobilization of plutonium, and can be used for the fabrication of MOX fuel. It could be produced at a commercial site by the conversion of uranium hexafluoride shipped from one of DOE's storage areas at a gaseous diffusion plant in Kentucky, Ohio, or Tennessee. The GE Nuclear facility in Wilmington, North Carolina was used for the purpose of determining the potential environmental impacts of the conversion of uranium hexafluoride to uranium dioxide as part of the surplus plutonium disposition program (see Section 1.5). Results of the environmental analysis indicate that the radiological risks of shipping either depleted uranium hexafluoride or depleted uranium dioxide would likely be minor, and would contribute little to the total risk of any alternative. The decision on the source of uranium dioxide will depend on DCS, the team selected by DOE to provide the MOX fuel fabrication and irradiation services.

**WAD18-8**

**Cost**

Funds for the surplus plutonium disposition program and the environmental cleanup program come from different appropriation accounts allocated by the U.S. Congress that cannot be used interchangeably.

Although cost will be a factor in the decisionmaking process, this SPD EIS contains environmental impact data and does not address the costs associated with the various alternatives. The remainder of this comment is addressed in response WAD18-5.

**WAD18-9**

**Alternatives**

DOE believes that Hanford's efforts should remain focused on its current high-priority cleanup mission. The importance of cleanup at Hanford was taken into consideration in identifying preferred sites for surplus plutonium disposition activities. However, no decision has been made, and DOE will continue to consider Hanford for surplus plutonium disposition or other programs that are compatible with the Hanford mission, especially in regard to the use of existing facilities.

# TRI-CITY INDUSTRIAL DEVELOPMENT COUNCIL

## PAGE 4 OF 6

### • Pit Disassembly and Conversion

Hanford was again not considered for this portion of the plutonium disposition program on the bases of site cleanup and transportation issues. We have addressed the site cleanup program issue above.

9

In regards to transportation, the Draft EIS displays an unusual display of creative but fallacious logic in regards to transportation. By making the decision to site the MOX facility at Savannah River, the location of the Pit facility at Hanford would entail an extra transportation step to move the pits from storage at Pantex to Hanford for disassembly and conversion and then to Savannah River for MOX fuel manufacturing. This ignores the more logical and economical approach of co-locating both the MOX fuel manufacturing and pit conversion facilities in the FMEF at Hanford. This dual utilization of both processes at Hanford would provide capital cost savings of over \$500M. This potential cost savings cannot be ignored. The current Draft EIS does not address the cost issue. We understand that there is adequate space available in the FMEF for both of these process facilities with appropriate separation to meet anticipated security and safeguards requirements.

10

We wish to make the following general statements in regards to this Draft EIS.

- The draft EIS statement does not address the comparative costs of the preferred alternatives. By eliminating this analysis the capital cost savings, which could be realized by use of the Fuels and Materials Examination Facility (FMEF) at Hanford for the pit conversion and MOX fuel manufacturing operations, have been ignored. Previous studies have identified these savings at over \$500 M in capital cost alone.

11

- In considering inter-site transportation issues the EIS identifies an additional 2300 truck shipments which would be required over the 15 year estimated life of the program for location of the plutonium disposition facilities at Hanford. The comparable number of shipments to the Savannah River site is estimated at 2500 over the same 15-year program life. This leads to the conclusion that with both the new MOX and pit conversion facilities located at one site there are no differences between the sites.

12

- The draft EIS analyses a number of environmental issues for each of the four sites, Hanford, Savannah River, INEEL, and Pantex. Although there are some differences between the sites for the various environmental impacts considered, these differences are not significant and no site is clearly less or more acceptable than the others from an environmental standpoint.

13

- In the case of Hanford, the report assumes that a new spent MOX facility will be required to be constructed adjacent to the FMEF, with the pit conversion process installed in the FMEF. Previous Hanford studies have shown that both of these operations can be accommodated within the FMEF with an adequate degree of security and process isolation provided.

14

- Based upon current congressional budget policies the total DOE budget will be held essentially flat or decreasing for the foreseeable future. In order to accommodate potentially expensive programs such as the plutonium disposition and tritium production programs, it is

8

WAD18

### WAD18-10

### Alternatives

DOE acknowledges the commentor's support for siting the pit conversion and MOX facilities using FMEF at Hanford. Of all the alternatives analyzed in this SPD EIS, none include siting the pit conversion facility at Hanford and the MOX facility at SRS.

The remainder of this comment is addressed in response WAD18-5.

### WAD18-11

### Cost

This comment is addressed in response WAD18-5.

### WAD18-12

### Transportation

DOE recognizes that there is not a significant difference in the number of intersite truck shipments if all of the proposed surplus plutonium disposition facilities were located at one site, either Hanford or SRS. However, there are larger differences, but still not significant, between some of the other alternatives analyzed in this SPD EIS.

### WAD18-13

### General SPD EIS and NEPA Process

DOE acknowledges the commentor's position on the lack of significant differences in the environmental impacts of the alternatives reflected in this SPD EIS. A separate report, *Cost Analysis in Support of Site Selection for Surplus Weapons-Usable Plutonium Disposition* (DOE/MD-0009, July 1998), analyzes the cost and schedule estimates for each alternative, and the *Plutonium Disposition Life-Cycle Costs and Cost-Related Comment Resolution Document* (DOE/MD-0013, November 1999), covers recent life-cycle cost analyses associated with the preferred alternative. These reports, along with the SPD EIS and other relevant documents, will be available to the decisionmaker and the public. Decisions on the surplus plutonium disposition program will be based on environmental analyses, technical and cost reports, national policy and nonproliferation considerations, and public input.

### WAD18-14

### Alternatives

DOE agrees that both the pit conversion and MOX facilities could be collocated in FMEF at Hanford, and has analyzed this scenario as Alternative 6B (see Sections 2.10.2 and 4.11). Also analyzed, as Alternative 6A, is a scenario that involves siting the pit conversion facility in FMEF and the MOX facility in new construction adjacent to FMEF.

<p>expected that the Environmental Management budget, which is a major portion of the total DOE budget will be utilized in part for the required funding for these programs. Reductions in the EM budget will impact Hanford cleanup programs, which are already underfunded. Therefore, we do not see how the issue added program costs for the plutonium disposition program can be ignored in an environmental assessment of the plutonium disposition program.</p>	8
<ul style="list-style-type: none"> <li>There are a number of other issues in the Draft EIS where assumptions have been made which are clearly prejudicial to a balanced and objective evaluation of the alternatives. In the case of the supporting depleted uranium UF<sub>6</sub> to UO<sub>2</sub> conversion process it would be located in North Carolina at an existing commercial facility due to its proximity to Savannah River. A similar facility located at the Siemens plant in Richland was not considered in the Hanford or INEEL evaluations.</li> </ul>	7
<ul style="list-style-type: none"> <li>The rationale for focusing on Savannah River or Pantex for the proposed facilities was based upon the need for DOE management to focus on cleanup program issues at Hanford and INEEL. This is an issue of requiring effective site management performance at these sites, which should not be an issue in selecting a site based upon the EIS process. Governor Locke supports Hanford for this mission.</li> </ul>	9
<p>This Draft EIS must be revised to give balanced consideration to the following issues:</p>	
<ul style="list-style-type: none"> <li>Potential cost savings resulting from the use of the FMEF at Hanford must be considered. The EIS is not credible without consideration of this issue.</li> </ul>	11
<ul style="list-style-type: none"> <li>The avoidance of new program assignments to Hanford in order to avoid the diversion of effort from the cleanup program is a management issue – not an environmental assessment issue.</li> </ul>	9
<ul style="list-style-type: none"> <li>There is no essential difference between the environmental impacts between the sites; therefore, the least cost for the program is an environmental issue.</li> </ul>	13
<ul style="list-style-type: none"> <li>The data in the draft EIS clearly shows that actual transportation impacts between sites are not significant.</li> </ul>	12
<ul style="list-style-type: none"> <li>The document as written clearly does not provide a basis for a selection decision between sites. Only by omitting comparative costs and making assumptions favoring a specific site can the preferred site conclusion contained in the draft assessment be supported.</li> </ul>	11
<ul style="list-style-type: none"> <li>The draft EIS is not a balanced and objective assessment. It must be extensively revised to reflect an objective evaluation for it to be acceptable and without challenge.</li> </ul>	2
<ul style="list-style-type: none"> <li>An objective evaluation of comparative plutonium disposal program costs including facility comparisons must be made. Current DOE studies and documentation regarding these costs must be made available for public review.</li> </ul>	8

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The Draft EIS as written does not comply with the legal requirements of the National Environmental Policy Act for a balanced evaluation of all feasible alternatives. This document could be the subject of litigation if it is not withdrawn and ~~revised~~ *revised* to comply in all respects with the National Environmental Policy Act.

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TRI-CITY INDUSTRIAL DEVELOPMENT COUNCIL

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September 15, 1998

Mr. Howard Canter, Acting Director  
Office of Fissile Materials Disposition  
U.S. Department of Energy  
PO Box 23786  
Washington, D.C. 20026-3786

Surplus Plutonium Disposition  
Draft Environmental Impact Statement

During the August 4, 1998 public meeting in Richland, Washington we submitted a statement regarding the subject EIS. In this statement we identified a number of issues with the EIS related to siting this program at Hanford which resulted from erroneous costing data faulty logic and unsupported assumptions contained in the draft EIS. Specifically we were astonished at the cost estimates contained in the EIS, which did not identify the savings which would result from use of the FMEF at Hanford for the plutonium disposition program.

The purpose of the Environmental Impact Statement process is to provide an objective, balanced, and defensible evaluation of all viable alternatives to the proposed governmental action. Environmental Impact Statements that are severely flawed and which do not meet the criteria for the evaluation of feasible alternatives, are subject to legal challenges and significant programmatic delays. This EIS and its supporting documentation such as DOE/MO-0009 Rev.0 "Cost Analysis in Support of Site Selection for Surplus Weapons Usable Plutonium Disposition" does not meet any criteria for an objective evaluation of reasonable program alternatives.

This document has a publication date of July 22, 1998, yet it was not made available for public review and comment prior to the August 4 hearing in Richland. It has not been widely made available to the public since that date. Perhaps due to the erroneous and faulty analysis contained in this document your office has been reluctant to have it reviewed and commented on by the public.

We have worked with local firms and individuals who are knowledgeable regarding the FMEF in the review of the cost data contained in your documentation. These reviews indicated that the cost estimates for surplus plutonium disposition alternatives are biased against the Fuels and Materials Examination Facility at Hanford. Because of this the estimates are of limited value for comparing costs of different alternatives.

MD326

MD326-1

Cost Report

Neither the SPD Draft EIS nor the SPD Final EIS contain cost estimates. It is assumed the cost estimates referred to were observed in the associated cost analysis report, *Cost Analysis in Support of Site Selection for Surplus Weapons-Usable Plutonium Disposition* (DOE/MD-0009, July 1998). This comment has been forwarded to the cost analysis team for consideration. The *Plutonium Disposition Life-Cycle Costs and Cost-Related Comment Resolution Document* (DOE/MD-0013, November 1999), which covers recent life-cycle cost analyses associated with the preferred alternative, is available on the MD Web site at <http://www.doe-md.com> and in the public reading rooms at the following locations: Hanford, INEEL, Pantex, SRS, and Washington, D.C. The information presented in the cost report was based on the best information available from the candidate sites at the time it was published. DOE continues to gather information on the costs associated with constructing the proposed surplus plutonium disposition facilities and has prepared the life-cycle costs document to address changes in the expected costs as well as respond to public comment.

Responses to the issues identified in the August 4, 1998, statement can be found under the comment identification code WAD18.

MD326-2

General SPD EIS and NEPA Process

DOE has prepared this SPD EIS in accordance with the provisions of NEPA (42 U.S.C. 4321 et seq.) and the related CEQ and DOE implementation regulations (40 CFR 1500 through 1508 and 10 CFR 1021, respectively). The primary objective of the EIS is a comprehensive description of proposed surplus plutonium disposition actions and alternatives and their potential environmental impacts. DOE has analyzed each environmental resource area in a consistent manner across all the alternatives to allow for a fair comparison among the alternatives and among the candidate sites for surplus plutonium disposition facilities. Use of FMEF in the surplus plutonium disposition program is considered in this SPD EIS under Alternatives 2, 4, 6, 8, 10, and 11. Decisions on the surplus plutonium disposition program will be based on environmental analyses, technical and cost reports, national policy and nonproliferation considerations, and public input.

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SAM VOLENTEST

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Our analysis of your documentation indicates that installing a MOX line in the FMEF would save just \$40 million compared to building a new, stand-alone facility. It is not reasonable that using an existing facility would save less than 10% of total Design and Construction Costs (estimated at \$530 million for a new, stand-alone facility).

Examination of the engineering documents from which these figures were derived indicates that Total Estimated Cost (TEC) for Design and Construction of MOX at Hanford is \$410 M for a new facility and \$340 M for the FMEF. This is less than a 20% reduction for avoiding the construction of a 140,000 S.F. earthquake and tornado resistant, Category 1 facility.

Detailed analysis of the estimates reveals that they are based upon erroneous assumptions. For example, both estimates assume a completely new HVAC system is required for the FMEF at a cost of \$36 M. This may be reasonable for a new facility but is not applicable to FMEF, which already has a complete HVAC system for a MOX line.

The cost of upgrading the FMEF is estimated to be 65% of the cost of a new facility. This is not reasonable with the FMEF costs significantly overstated. Previous detailed cost estimates prepared at Hanford indicate that \$24 M is required to modify the FMEF to accommodate MOX program including \$9 M in security upgrades.

The cost estimate for the FMEF alternative also includes \$38 M for support equipment and facilities that are not needed. All of the required capabilities already exist for the FMEF alternative. Subtracting these costs from the FMEF estimate and substituting in the Hanford estimate for building modifications reduces the TEC for the FMEF alternative to about \$250 M or about 60% of the cost of a new facility.

However, an independent estimate done at Hanford shows that the MOX process can be installed in the FMEF for about \$160 M. This represents savings of \$250 M compared to the estimates for a new, stand-alone facility. This estimate was prepared by staff knowledgeable of the facility and was based on detailed equipment lists and glove box layouts. It was prepared and reviewed by experienced estimators.

It is clear that using the FMEF would be substantially cheaper than building a new facility. There are also technical and programmatic risks involved with starting a new major systems acquisition (MSA) in the current federal budget situation. The contingency will be higher for a new facility than for an existing facility. The configuration of the FMEF is well defined and the available space is more than adequate.

The FMEF alternative can be implemented on a shorter schedule than the construction of a new facility. The design and construction of a new facility increases the risk of schedule delays and budget cuts that slow progress and add to the overall life-cycle costs. The FMEF alternative has the unrecognized benefit of being able to proceed immediately and the possibility of accelerating the schedule rather than delaying it.

Finally, in order to understand the best possible benefit to DOE and the taxpayers, it would be appropriate to allow the commercial fuel fabricators to provide their input regarding the

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MD326

## MD326-3

## Cost Report

The cost analysis report and the life-cycle cost document are available on the MD Web site at <http://www.doe-md.com> and in the public reading rooms at the following locations: Hanford, INEEL, Pantex, SRS, and Washington, D.C. The cost analysis report was posted on the Internet for public review shortly after its release.

## MD326-4

## Cost Report

Because this comment relates directly to the cost analysis report, it has been forwarded to the cost analysis team.



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SAM VOLENTEST  
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preferred option for a MOX fuel fabrication facility owned by DOE, but operated by the private sector. Economic factors clearly favor utilizing an existing facility and the private sector is best equipped to advise DOE on the relative cost advantages of using the FMEF.

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Based on these identified deficiencies and erroneous conclusions in the EIS and its supporting documentation we recommend that the documents be withdrawn and rewritten to provide a factual, balanced, and objective evaluation of the program alternatives including utilization of the FMEF for both the pit disassembly and conversion process and the MOX fuel fabrication.

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These actions on your part will avoid the potential programmatic delays resulting from potential stakeholder legal action and congressional inquiries.

Thank you for your consideration of these comments.

Very truly yours,

  
Sam Volpentest  
Executive Vice President

C: Secretary Richardson  
Senator Slade Gorton  
Senator Patty Murray  
Congressman Doc Hastings  
Congressman Norm Dicks